



#10

00431PHRM293.ST25.txt  
SEQUENCE LISTING

<110> Vogeli, Gabriel  
Huff, Rita  
Sejlitz, Torsten  
Lind, Peter  
Slightom, Jerry  
Schellin, Kathleen  
Bannigan, Chris  
Ruff, Valerie  
Kaytes, Paul  
Wood, Linda  
Parodi, Luis  
Hiebsch, Ronald

<120> Novel G Protein Coupled Receptors

<130> 00431PHRM293

<140> 09/714,449

<141> 2000-11-16

<150> 60/165,838

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<150> 60/198,568

<151> 2000-04-20

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&lt;151&gt; 2000-05-08

&lt;150&gt; 60/207,094

&lt;151&gt; 2000-05-25

&lt;160&gt; 190

&lt;170&gt; PatentIn version 3.0

&lt;210&gt; 1

&lt;211&gt; 1182

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 2

&lt;211&gt; 335

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&lt;400&gt; 2

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1           5           10           15

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00431PHRM293.ST25.txt

Leu Ile Ile Ala Thr Asn Thr Leu Val Ala Val Ala Val Leu Leu Leu  
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 Ile His Lys Asn Asp Gly Val Ser Leu Cys Phe Thr Leu Asn Leu Ala  
 35 40 45  
 Val Ala Asp Thr Leu Ile Gly Val Ala Ile Ser Gly Leu Leu Thr Asp  
 50 55 60  
 Gln Leu Ser Ser Pro Ser Arg Pro Thr Gln Lys Thr Leu Cys Ser Leu  
 65 70 75 80  
 Arg Met Ala Phe Val Thr Ser Ser Ala Ala Ala Ser Val Leu Thr Val  
 85 90 95  
 Met Leu Ile Thr Phe Asp Arg Tyr Leu Ala Ile Lys Gln Pro Phe Arg  
 100 105 110  
 Tyr Leu Lys Ile Met Ser Gly Phe Val Ala Gly Ala Cys Ile Ala Gly  
 115 120 125  
 Leu Trp Leu Val Ser Tyr Leu Ile Gly Phe Leu Pro Leu Gly Ile Pro  
 130 135 140  
 Met Phe Gln Gln Thr Ala Tyr Lys Gly Gln Cys Ser Phe Phe Ala Val  
 145 150 155 160  
 Phe His Pro His Phe Val Leu Thr Leu Ser Cys Val Gly Phe Phe Pro  
 165 170 175  
 Ala Met Leu Leu Phe Val Phe Phe Tyr Cys Asp Met Leu Lys Ile Ala  
 180 185 190  
 Ser Met His Ser Gln Gln Ile Arg Lys Met Glu His Ala Gly Ala Met  
 195 200 205  
 Ala Gly Gly Tyr Arg Ser Pro Arg Thr Pro Ser Asp Phe Lys Ala Leu  
 210 215 220  
 Arg Thr Val Ser Val Leu Ile Gly Ser Phe Ala Leu Ser Trp Thr Pro  
 225 230 235 240  
 Phe Leu Ile Thr Gly Ile Val Gln Val Ala Cys Gln Glu Cys His Leu  
 245 250 255  
 Tyr Leu Val Leu Glu Arg Tyr Leu Trp Leu Leu Gly Val Gly Asn Ser  
 260 265 270  
 Leu Leu Asn Pro Leu Ile Tyr Ala Tyr Trp Gln Lys Glu Val Arg Leu  
 275 280 285  
 Gln Leu Tyr His Met Ala Leu Gly Val Lys Lys Val Leu Thr Ser Phe  
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 Leu Leu Phe Leu Ser Ala Arg Asn Cys Gly Pro Glu Arg Pro Arg Glu  
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 325 330 335

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gagcgtggcg gtgaaggctg cgaagcgcg acgctcaggc tcgggcggca ggcgcagcga      180
acaggacgcg aaggcgctgc tgtagccaag ccacgagcag ccaagtgcag cgcttgagaa      240
ggccagcgac tgtccccagg cacagcccag cagcaggccg gcatagcgcg gtcgcaggcg      300
tccggcgtag cgagctggga agccactgc cagccactgg tctgcgctca gcgcgccac      360
gctcagcgcc gcgttgagcg ccaggaaggt gtccaggaag ccaatgactt ggcatgcgcc      420
gggcgccgac ggtgtccgcc cgcgcacac accgagcagc gtgaagggca tgtccagcgc      480
cgccagcagc aggtggccca gagacagatt caccaggagg acgcctgagg ctcgagtgcg      540
gagctcagcg ctgtaggcgc aacaaagcag caccagtgcg ttggatagca gcgccacggc      600
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<210> 4
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<212> PRT
<213> Homo sapiens

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Val Leu Ala Val Ala Leu Leu Ser Asn Ala Leu Val Leu Leu Cys Cys
20          25          30

Ala Tyr Ser Ala Glu Leu Arg Thr Arg Ala Ser Gly Val Leu Leu Val
35          40          45

Asn Leu Ser Leu Gly His Leu Leu Leu Ala Ala Leu Asp Met Pro Phe
50          55          60

Thr Leu Leu Gly Val Met Arg Gly Arg Thr Pro Ser Ala Pro Gly Ala
65          70          75          80

Cys Gln Val Ile Gly Phe Leu Asp Thr Phe Leu Ala Ser Asn Ala Ala
85          90          95

Leu Ser Val Ala Ala Leu Ser Ala Asp Gln Trp Leu Ala Val Gly Phe
100         105         110

Pro Leu Arg Tyr Ala Gly Arg Leu Arg Pro Arg Tyr Ala Gly Leu Leu
115         120         125

Leu Gly Cys Ala Trp Gly Gln Ser Leu Ala Phe Ser Gly Ala Ala Leu
130         135         140

Gly Cys Ser Trp Leu Gly Tyr Ser Ser Ala Phe Ala Ser Cys Ser Leu
145         150         155         160

Arg Leu Pro Pro Glu Pro Glu Arg Pro Arg Phe Ala Ala Phe Thr Ala
165         170         175

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## 00431PHRM293.ST25.txt

Thr Leu His Ala Val Gly Phe Val Leu Pro Leu Ala Val Leu Cys Leu  
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Thr Ser Leu Gln Val His Arg Val Ala Arg Arg His Cys Gln Arg Met  
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Asp Thr Val Thr Met Lys Ala Leu Ala  
210 215

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<211> 222  
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ggaaaggaaa tctgtgtatt ttggctcact actgactatc tgttatgtac agcatctgta 120  
tataacattg tcctcatcag ctatgatcga tacctgtcag tctcaaatgc tgtaagtcga 180  
acacattaat ttatccccct tagaagatta tgtaaagtga ta 222

<210> 6  
<211> 73  
<212> PRT  
<213> Homo sapiens

<400> 6

Cys Ala Gly Val Ile Ser Ile Pro Leu Tyr Ile Pro His Thr Leu Phe  
1 5 10 15

Glu Trp Asp Phe Gly Lys Glu Ile Cys Val Phe Trp Leu Thr Thr Asp  
20 25 30

Tyr Leu Leu Cys Thr Ala Ser Val Tyr Asn Ile Val Leu Ile Ser Tyr  
35 40 45

Asp Arg Tyr Leu Ser Val Ser Asn Ala Val Ser Arg Thr His Phe Ile  
50 55 60

Pro Leu Arg Arg Leu Cys Lys Cys Ile  
65 70

<210> 7  
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acgacggcgg cgccagcgct tggagctgag cgggtacagg atccccagga agcgctccac 180  
gctgatacag gtcattggtga ggatgctgga atacatgttt gcgtaaaagg ccacgggtcac 240  
cacgttgcaa agcagcaccc cgaataccca gtggtggcgg ttgcaatggt agtagatttg 300  
gaaaggcaac acgctggcca gcatcaggtc cgtgacgctc aggttgatca tgaagatgac 360  
cgacggggat ctgggccccca tgcgccggca cagcacccac agagagaaga gggtgcccgg 420

gatgctgacc gccgccacca gcgagtacac cacgggcagg gccaccgcga tcgccgggtt 480  
ccgcagcatc tgcagcgctc cgttgtc 507

<210> 8  
<211> 169  
<212> PRT  
<213> Homo sapiens

<400> 8

Asp Asn Ala Thr Leu Gln Met Leu Arg Asn Pro Ala Ile Ala Val Ala  
1 5 10 15  
Leu Pro Val Val Tyr Ser Leu Val Ala Ala Val Ser Ile Pro Gly Asn  
20 25 30  
Leu Phe Ser Leu Trp Val Leu Cys Arg Arg Met Gly Pro Arg Ser Pro  
35 40 45  
Ser Val Ile Phe Met Ile Asn Leu Ser Val Thr Asp Leu Met Leu Ala  
50 55 60  
Ser Val Leu Pro Phe Gln Ile Tyr Tyr His Cys Asn Arg His His Trp  
65 70 75 80  
Val Phe Gly Val Leu Cys Asn Leu Val Val Thr Val Ala Phe Tyr Ala  
85 90 95  
Asn Met Tyr Ser Ser Ile Leu Thr Met Thr Cys Ile Ser Val Glu Arg  
100 105 110  
Phe Leu Gly Ile Leu Tyr Pro Leu Ser Ser Lys Arg Trp Arg Arg Arg  
115 120 125  
Arg Tyr Ala Val Ala Ala Cys Ala Gly Thr Trp Leu Leu Leu Leu Thr  
130 135 140  
Ala Leu Ser Pro Leu Ala Arg Thr Asp Leu Thr Tyr Pro Val His Ala  
145 150 155 160  
Leu Gly Ile Ile Thr Cys Phe Asp Val  
165

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<212> DNA  
<213> Homo sapiens

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gcacgggagg gaggcgtctt cgtggcactc actgcgtccg tgctgagcct cctgggcatc 180  
gcgctggagc gcagcctcac catggcgcgc agggggcccg cgcccgctc cagtcggggg 240  
cgcacgctgg cgatggcagc cgcggcctgg 270

<210> 10  
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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 10

Pro Met Phe Leu Leu Leu Gly Ser Leu Thr Leu Ser Asp Leu Leu Ala  
 1 5 10 15

Gly Ala Ala Tyr Ala Ala Asn Ile Leu Leu Ser Gly Pro Leu Thr Leu  
 20 25 30

Lys Leu Ser Pro Ala Leu Trp Phe Ala Arg Glu Gly Gly Val Phe Val  
 35 40 45

Ala Leu Thr Ala Ser Val Leu Ser Leu Leu Gly Ile Ala Leu Glu Arg  
 50 55 60

Ser Leu Thr Met Ala Arg Arg Gly Pro Ala Pro Val Ser Ser Arg Gly  
 65 70 75 80

Arg Thr Leu Ala Met Ala Ala Ala Ala Trp  
 85 90

&lt;210&gt; 11

&lt;211&gt; 888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 11

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 gatttcctcc ttatgatctg cctgcctttt cggacagact attacctcag acgtagacac 180  
 tgggcttttg gggacattcc ctgccgagtg gggctcttca cgttggccat gaacagggcc 240  
 gggagcatcg tgttccttac ggtggtggct gcggacaggt atttcaaagt ggtccacccc 300  
 caccacgcgg tgaacactat ctccaccggt gtggcggtcg gcatcgtctg caccctgtgg 360  
 gccctggtea tcctgggaac agtgtatctt ttgctggaga accatctctg cgtgcaagag 420  
 acggccgtct cctgtgagag cttcatcatg gagtcggcca atggctggca tgacatcatg 480  
 ttccagctgg agttctttat gccctcggc atcatcttat tttgtcctt caagattgtt 540  
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 ctctatttcc tctggacggt gccctcgagt gcctgcgac cctctgtcca tggggccctg 720  
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 cagccaggac actcaaaaac acaaaggccg gaagagatgc caatttcg 888

&lt;210&gt; 12

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 12

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 20 25 30  
 Tyr Leu Phe Asn Leu Ala Val Ala Asp Phe Leu Leu Met Ile Cys Leu  
 35 40 45  
 Pro Phe Arg Thr Asp Tyr Tyr Leu Arg Arg Arg His Trp Ala Phe Gly  
 50 55 60  
 Asp Ile Pro Cys Arg Val Gly Leu Phe Thr Leu Ala Met Asn Arg Ala  
 65 70 75 80  
 Gly Ser Ile Val Phe Leu Thr Val Val Ala Ala Asp Arg Tyr Phe Lys  
 85 90 95  
 Val Val His Pro His His Ala Val Asn Thr Ile Ser Thr Arg Val Ala  
 100 105 110  
 Ala Gly Ile Val Cys Thr Leu Trp Ala Leu Val Ile Leu Gly Thr Val  
 115 120 125  
 Tyr Leu Leu Leu Glu Asn His Leu Cys Val Gln Glu Thr Ala Val Ser  
 130 135 140  
 Cys Glu Ser Phe Ile Met Glu Ser Ala Asn Gly Trp His Asp Ile Met  
 145 150 155 160  
 Phe Gln Leu Glu Phe Phe Met Pro Leu Gly Ile Ile Leu Phe Cys Ser  
 165 170 175  
 Phe Lys Ile Val Trp Ser Leu Arg Arg Arg Gln Gln Leu Ala Arg Gln  
 180 185 190  
 Ala Arg Met Lys Lys Ala Thr Arg Phe Ile Met Val Val Ala Ile Val  
 195 200 205  
 Phe Ile Thr Cys Tyr Leu Pro Ser Val Ser Ala Arg Leu Tyr Phe Leu  
 210 215 220  
 Trp Thr Val Pro Ser Ser Ala Cys Asp Pro Ser Val His Gly Ala Leu  
 225 230 235 240  
 His Ile Thr Leu Ser Phe Thr Tyr Met Asn Ser Met Leu Asp Pro Leu  
 245 250 255  
 Val Tyr Tyr Phe Ser Ser Pro Ser Phe Pro Lys Phe Tyr Asn Lys Leu  
 260 265 270  
 Lys Ile Cys Ser Leu Lys Pro Lys Gln Pro Gly His Ser Lys Thr Gln  
 275 280 285  
 Arg Pro Glu Glu Met Pro Ile Ser  
 290 295

&lt;210&gt; 13

&lt;211&gt; 510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 13



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<400> 14

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20        25        30
Arg Trp Pro Phe Gly Glu Leu Leu Cys Lys Leu Val His Phe Leu Phe
35        40        45
Tyr Ile Asn Leu Tyr Gly Ser Ile Leu Leu Leu Thr Cys Ile Ser Val
50        55        60
His Gln Phe Leu Gly Val Cys His Pro Leu Cys Ser Leu Pro Tyr Arg
65        70        75        80
Thr Arg Arg His Ala Trp Leu Gly Thr Ser Thr Thr Trp Ala Leu Val
85        90        95
Val Leu Gln Leu Leu Pro Thr Leu Ala Phe Ser His Thr Asp Tyr Ile
100       105       110
Asn Gly Gln Met Ile Trp Tyr Asp Met Thr Ser Gln Glu Asn Phe Asp
115       120       125
Arg Leu Phe Ala Tyr Gly Ile Val Leu Thr Leu Ser Gly Phe Leu Ser
130       135       140
Leu Leu Gly His Phe Gly Val Leu Phe Thr Asp Gly Gln Glu Pro Asp
145       150       155       160
Gln Ala Arg Gly Glu Pro His Glu Asp Arg
165       170

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 <223> n is any nucleotide

<220>  
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 <223> n is any nucleotide

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<220>  
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 1 5 10 15

## 00431PHRM293.ST25.txt

Gly Asn Thr Thr Val Leu Cys Arg Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 20 25 30  
 Xaa Xaa Xaa Lys Arg Arg Lys Met Asp Phe Leu Leu Val Gln Leu Ala  
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 Leu Ala Asp Leu Tyr Ala Cys Gly Gly Thr Ala Leu Ser Gln Leu Ala  
 50 55 60  
 Trp Glu Leu Leu Gly Glu Pro Arg Ala Ala Thr Gly Asp Leu Ala Cys  
 65 70 75 80  
 Arg Phe Leu Gln Leu Leu Gln Ala Ser Gly Arg Gly Ala Ser Ala His  
 85 90 95  
 Leu Val Val Leu Ile Ala Leu Glu Arg Arg Arg Ala Val Arg Leu Pro  
 100 105 110  
 His Gly Arg Pro Leu Pro Ala Arg Ala Leu Ala Ala Leu Gly Trp Leu  
 115 120 125  
 Leu Ala Leu Leu Leu Ala Arg Gly Ser Gly Phe Val Val Arg Tyr Xaa  
 130 135 140  
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Thr Ser Leu Gln Pro Gly  
 145 150 155 160  
 Ala Pro Leu Ser Ala Arg Ala Trp Pro Gly Met Arg Arg Cys His Trp  
 165 170 175  
 Ile Phe Ala Leu Leu Gln Arg Trp His Val Gln Val Tyr Ala Phe Tyr  
 180 185 190  
 Glu Ala Val Ala Gly Phe Val Ala Pro Val Lys Ile Met Gly Val Ala  
 195 200 205  
 Cys Gly His Leu Leu Ser Val Trp Trp Arg His Arg Leu Lys Ala Pro  
 210 215 220  
 Ala Gly Ala Ala Ala Trp Ser Ala Ser Pro Gly Gly Ala Arg Ala Pro  
 225 230 235 240  
 Ser Ala Met Pro Arg Ala Lys Val Gln Ser Leu Lys Met Ser Gln Leu  
 245 250 255  
 Leu Gly Leu Leu Phe Val Gly Cys Glu Leu Pro Phe Ala Asp Arg Leu  
 260 265 270  
 Glu Ala Ala Trp Ser Ser Gly Pro Ala Gly Glu Trp Glu Gly Glu Ala  
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&lt;210&gt; 17

&lt;211&gt; 801

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

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cccagcctag atactcactc tgagtgccat gaggtagtag aggacactga tgacagtcac 120

ggggaggagg tagaatagga aggagggtgac ctggatgatg aaattgtaga tccacatggg 180

## 00431PHRM293.ST25.txt

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gccgaggatc ctgagggccc ggcgccgggt gctctgcagt ttggcgcgga acgggtgtag 360
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gcgccacatc tcatagacct ccaggggcat tccaaggagc aggaccagga ggtcagagac 540
cgccaggctg aagaggtagt agttggtggg cgtcttcata gcctggtgct gcagaatcac 600
caggcacacc aggacattgc caatgacccc caccacaaaa attggcacat acaccacaga 660
cacggggagg aagaagtggc tgcgccgagg tccgcagagg aaggccagat actcctcgg 720
gctgttcagg tgtttctgga atggatcttc tagtttctgc tggtagatcc aggaagcatt 780
ctgaagtttt tccatccctg a 801

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<210> 18
<211> 249
<212> PRT
<213> Homo sapiens

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<400> 18

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Ser Gly Met Glu Lys Leu Gln Asn Ala Ser Trp Ile Tyr Gln Gln Lys
1          5          10          15
Leu Glu Asp Pro Phe Gln Lys His Leu Asn Ser Thr Glu Glu Tyr Leu
20        25        30
Ala Phe Leu Cys Gly Pro Arg Arg Ser His Phe Phe Leu Pro Val Ser
35        40        45
Val Val Tyr Val Pro Ile Phe Val Val Gly Val Ile Gly Asn Val Leu
50        55        60
Val Cys Leu Val Ile Leu Gln His Gln Ala Met Lys Thr Pro Asn Thr
65        70        75        80
Tyr Tyr Leu Phe Ser Leu Ala Val Ser Asp Leu Leu Val Leu Leu Leu
85        90        95
Gly Met Pro Leu Glu Val Tyr Glu Met Trp Arg Asn Tyr Pro Phe Leu
100       105       110
Phe Gly Pro Val Gly Cys Tyr Phe Lys Thr Ala Leu Phe Glu Thr Val
115       120       125
Cys Phe Ala Ser Ile Leu Ser Ile Thr Thr Val Ser Val Glu Arg Tyr
130       135       140
Val Ala Ile Leu His Pro Phe Arg Ala Lys Leu Gln Ser Thr Arg Arg
145       150       155       160
Arg Ala Leu Arg Ile Leu Gly Ile Val Trp Gly Phe Ser Val Leu Phe
165       170       175
Ser Leu Pro Asn Thr Ser Ile His Gly Ile Lys Phe His Tyr Phe Pro

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180                      185                      190  
 Asn Gly Ser Leu Val Pro Gly Ser Ala Thr Cys Thr Val Ile Lys Pro  
       195                      200                      205  
 Met Trp Ile Tyr Asn Phe Ile Ile Gln Val Thr Ser Phe Leu Phe Tyr  
       210                      215                      220  
 Leu Leu Pro Met Thr Val Ile Ser Val Leu Tyr Tyr Leu Met Ala Leu  
       225                      230                      235                      240  
 Arg Val Ser Ile Ala Gly Val Ala Gly  
                              245

<210> 19  
 <211> 222  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 atcaagatga tttttgctat cgtgcaaatt attggatttt ccaactccat ctgtaatccc        60  
 attgtctatg catttatgaa tgaaaacttc aaaaaaatg ttttgtctgc agtttggtat        120  
 tgcatagtaa ataaaacctt ctctccagca caaaggcatg gaaattcagg aattacaatg        180  
 atgcggaaga aagcaaagtt ttccctcaga gagaatccag tg                                222

<210> 20  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 20

Ile Lys Met Ile Phe Ala Ile Val Gln Ile Ile Gly Phe Ser Asn Ser  
 1                      5                      10                      15  
 Ile Cys Asn Pro Ile Val Tyr Ala Phe Met Asn Glu Asn Phe Lys Lys  
       20                      25                      30  
 Asn Val Leu Ser Ala Val Cys Tyr Cys Ile Val Asn Lys Thr Phe Ser  
       35                      40                      45  
 Pro Ala Gln Arg His Gly Asn Ser Gly Ile Thr Met Met Arg Lys Lys  
       50                      55                      60  
 Ala Lys Phe Ser Leu Arg Glu Asn Pro  
 65                      70

<210> 21  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 21  
 gccacagcat gcagttttct gtagaattcc actttgtctt tgcacttgaa gaagatgagg        60  
 tatctgggtga ccaggatcac cacatagaat aggaaccgtg aggtacatgt ggatgtgcag        120  
 catggcactc acaaatttgc agaagggcag cccaacatc caagtcttct tgaatgaggt        180  
 ggtcaagcga aatggcactg tcagcagaaa aacgctgtgg accaccacca agttaatgac        240

## 00431PHRM293.ST25.txt

cgccatggtg gtcactgacc ggggtgttcat tttcaccagg aggaaaagaa tggaaatgac 300  
 acccaccagc cgcgaataa gactatgaa gtagaggctg attaagtggg gtgtcactat 360  
 aggatcgcaa gaggaattcc tggaggtatt gtggccaggc atacttggga agtcacctgg 420  
 aggagaaaaa gcaccagagt aactgac 447

<210> 22  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 22

Val Ser Tyr Ser Gly Ala Phe Ser Pro Pro Gly Asp Phe Pro Ser Met  
 1 5 10 15  
 Pro Gly His Asn Thr Ser Arg Asn Ser Ser Cys Asp Pro Ile Val Thr  
 20 25 30  
 Pro His Leu Ile Ser Leu Tyr Phe Ile Val Leu Ile Gly Gly Leu Val  
 35 40 45  
 Gly Val Ile Ser Ile Leu Phe Leu Leu Val Lys Met Asn Thr Arg Ser  
 50 55 60  
 Val Thr Thr Met Ala Val Ile Asn Leu Val Val Val His Ser Val Phe  
 65 70 75 80  
 Leu Leu Thr Val Pro Phe Arg Leu Thr Tyr Leu Ile Lys Lys Thr Trp  
 85 90 95  
 Met Phe Gly Leu Pro Phe Cys Lys Phe Val Ser Ala Met Leu His Ile  
 100 105 110  
 His Met Tyr Leu Thr Val Pro Ile Leu Cys Gly Asp Pro Gly His Gln  
 115 120 125  
 Ile Pro His Leu Leu Gln Val Gln Arg Gln Ser Gly Ile Leu Gln Lys  
 130 135 140  
 Thr Ala Cys Cys Gly  
 145

<210> 23  
 <211> 222  
 <212> DNA  
 <213> Homo sapiens

<400> 23

actgaccaag gtcagggcat cgactgaggc tagaaggcca caggaaatgc cagtcaaggt 60  
 gttggcgct gcaatcgcac ctaccacaaa cttgaccggg ggcagggggg caggcccgcc 120  
 agcgaacacg gtcagcagca ccagtccatt gcagagcacg gagagcaaca cgatggccca 180  
 cacggccagg cggatgcccc agctttcaaa gaggtactca ca 222

<210> 24  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 24

Cys Glu Tyr Leu Phe Glu Ser Trp Gly Ile Arg Leu Ala Val Trp Ala  
 1 5 10 15

Ile Val Leu Leu Ser Val Leu Cys Asn Gly Leu Val Leu Leu Thr Val  
 20 25 30

Phe Ala Gly Gly Pro Ala Pro Leu Pro Pro Val Lys Phe Val Val Gly  
 35 40 45

Ala Ile Ala Gly Ala Asn Thr Leu Thr Gly Ile Ser Cys Gly Leu Leu  
 50 55 60

Ala Ser Val Asp Ala Leu Thr Leu Val Ser  
 65 70

&lt;210&gt; 25

&lt;211&gt; 246

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 25

aaccccatca tctacacgct caccaaccgc gacctgcgcc acgcgctcct gcgcctggtc 60  
 tgctgcggac gccactcctg cggcagagac ccgagtggct cccagcagtc ggcgagcgcg 120  
 gctgaggctt ccgggggcct gcgccgctgc ctgcccccg gccttgatgg gagcttcagc 180  
 ggctcggagc gtcacatgcc ccagcgcgac gggctggaca ccagcggctc cacaggcagc 240  
 cccggt 246

&lt;210&gt; 26

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 26

Asn Pro Ile Ile Tyr Thr Leu Thr Asn Arg Asp Leu Arg His Ala Leu  
 1 5 10 15

Leu Arg Leu Val Cys Cys Gly Arg His Ser Cys Gly Arg Asp Pro Ser  
 20 25 30

Gly Ser Gln Gln Ser Ala Ser Ala Ala Glu Ala Ser Gly Gly Leu Arg  
 35 40 45

Arg Cys Leu Pro Pro Gly Leu Asp Gly Ser Phe Ser Gly Ser Glu Arg  
 50 55 60

Ser Ser Pro Gln Arg Asp Gly Leu Asp Thr Ser Gly Ser Thr Gly Ser  
 65 70 75 80

Pro Gly

&lt;210&gt; 27

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (81)..(106)  
 <223> n is any nucleic acid

<400> 27  
 cgtgaagaac agcgccacca tgaccagcat gtgcaccacg cgcgctctgc gccgcatgc 60  
 tcgcgggtcc gcagcctcct nnnnnnnnnn nnnnnnnnnn nnnnnntggc agagcttgcg 120  
 cgcgatgcgg gcgtacatga ccacgatgag cgccagcggc gccaggtaga tgtgcgagaa 180  
 gagcacagtg gtgtagaccc tgcgcatgcc cttctcgggc caggcctccc agcaggagta 240  
 gagagggtag gagcggttgc gggcgtccac catgaagtgg tgctcctcac gggtgacggt 300  
 cagcgtgacg gccgaggac acatgatgag cagcgccagg gccagatga cggcgatggt 360  
 gacgagcgcc ttccgcaggg tcagcttctc gcggaaggg tgcacgatgc agcggaacct 420

<210> 28  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> UNSURE  
 <222> (104)..(113)  
 <223> Xaa is Unknown

<400> 28  
 Phe Arg Cys Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys  
 1 5 10 15  
 Ala Leu Val Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met  
 20 25 30  
 Cys Pro Ser Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe  
 35 40 45  
 Met Val Asp Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu  
 50 55 60  
 Ala Trp Pro Glu Lys Gly Met Arg Arg Val Tyr Thr Thr Val Leu Phe  
 65 70 75 80  
 Ser His Ile Tyr Leu Ala Pro Leu Ala Leu Ile Val Val Met Tyr Ala  
 85 90 95  
 Arg Ile Ala Arg Lys Leu Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 100 105 110  
 Xaa Glu Ala Ala Asp Pro Arg Ala Ser Arg Arg Arg Ala Arg Val Val  
 115 120 125  
 His Met Leu Val Met Val Ala Leu Phe Phe Thr  
 130 135

<210> 29  
 <211> 318  
 <212> DNA



&lt;213&gt; Homo sapiens

&lt;400&gt; 29

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gcagggggcg tgagtcctca ggcacttctt gaggtccttg ttgagcagga agcagacaat      60
tgggttgacg gcagcctggg cgaagctcat ccaaacagca gtggccaggt agcgggtggg      120
cacagcacag gctttcacia acactcgcca gtagcaggcc acgatgtagg gtgaccagag      180
gagcagaaaag agcagtgtga tcgcgtagaa catgcggccc agctgctttt cacccttgac      240
ctcgtccatg cccagtagcc gccggctggc tgcattgcca ttctgccgga taccagcag      300
ggttggtggc atgggccc                                318

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&lt;210&gt; 30

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 30

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Gly Pro Met Pro Pro Thr Leu Leu Gly Ile Arg Gln Asn Gly His Ala
1          5          10          15
Ala Ser Arg Arg Leu Leu Gly Met Asp Glu Val Lys Gly Glu Lys Gln
          20          25          30
Leu Gly Arg Met Phe Tyr Ala Ile Thr Leu Leu Phe Leu Leu Leu Trp
          35          40          45
Ser Pro Tyr Ile Val Ala Cys Tyr Trp Arg Val Phe Val Lys Ala Cys
          50          55          60
Ala Val Pro His Arg Tyr Leu Ala Thr Ala Val Trp Met Ser Phe Ala
65          70          75          80
Gln Ala Ala Val Asn Pro Ile Val Cys Phe Leu Leu Asn Lys Asp Leu
          85          90          95
Lys Lys Cys Leu Arg Thr His Ala Pro Cys
          100          105

```

&lt;210&gt; 31

&lt;211&gt; 354

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 31

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tattctgtaa tgaagaatgt cattcacact gccattggca catccagtgg cctcacctag      60
cattgtgaaa gcccttcggg tgggtgtatt ccaattcatt ttaaaaggat gcacaagtcc      120
ctggcgcctt tccacagcaa tgcaggcat agtgaggatt tctgtcacia cagcggtaga      180
ctggacaaat ggcaccatct tgcaaatgaa agcacctgca gtaaggaaat aggataaatc      240
atacatcaaa acaaaaagaa taaaggtttc atctgtgtct ttgtaattat cactatcagt      300
ccattctgag cctctgccaa aaagtttgat aattgtaatt actctgtaga caca          354

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&lt;210&gt; 32

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

Val Tyr Arg Val Ile Thr Ile Ile Lys Leu Phe Gly Arg Gly Ser Glu  
 1 5 10 15

Trp Thr Asp Ser Asp Asn Tyr Lys Asp Thr Asp Glu Thr Phe Ile Leu  
 20 25 30

Phe Val Leu Met Tyr Asp Leu Ser Tyr Phe Leu Thr Ala Gly Ala Phe  
 35 40 45

Ile Cys Lys Met Val Pro Phe Val Gln Ser Thr Ala Val Val Thr Glu  
 50 55 60

Ile Leu Thr Met Thr Cys Ile Ala Val Glu Arg His Gln Gly Leu Val  
 65 70 75 80

His Pro Phe Lys Met Lys Trp Gln Tyr Thr Asn Arg Arg Ala Phe Thr  
 85 90 95

Met Leu Gly Glu Ala Thr Gly Cys Ala Asn Gly Ser Val Asn Asp Ile  
 100 105 110

Leu His Tyr Arg Ile  
 115

&lt;210&gt; 33

&lt;211&gt; 621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 33

gagcaacatg atctttttga agtacttgac ggtgtcgttc ttgacggtca cgaagcacag 60  
 agtggtgatc atgctgttgc tcatggcgat gactcgcagc atgtagaagg cagtgaggta 120  
 gtgcttctcc ttcacaaaca cgggtgggaa gaagtcgcgc acgatggtga agccgtagaa 180  
 gggcgcccag catagcacgt aggcggtgag gatgcacatg agcaccagga ccgtcttcct 240  
 gcggcagcgc agcctcttgc ggatctgctc tgtctggaat ccagggaccg ccttgaacca 300  
 gagctcccgaggatcctgg catagcacag ggtcatggtg accacggggc ccacgaattc 360  
 tatgccaaag ataaagagga agtaggactt gtagtagagc tgctggtcca caggccagat 420  
 ctggccgcag aagatctttt cctggctctt gacaatgacg aggaccgtct cgggtggtgaa 480  
 gtaggcggaa gggatggcga tcaggatgga caccgtccac accaaggcaa tcaggccagt 540  
 ggctgttttg cacttcattc gtggtctcag cggtatggaca atagccagat acctagggca 600  
 agaacacaag tggaggcagc c 621

&lt;210&gt; 34

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

## 00431PHRM293.ST25.txt

Gly Cys Leu His Leu Cys Ser Cys Pro Arg Tyr Leu Ala Ile Val His  
1 5 10 15

Pro Leu Arg Pro Arg Met Lys Cys Gln Thr Ala Thr Gly Leu Ile Ala  
20 25 30

Leu Val Trp Thr Val Ser Ile Leu Ile Ala Ile Pro Ser Ala Tyr Phe  
35 40 45

Thr Thr Glu Thr Val Leu Val Ile Val Lys Ser Gln Glu Lys Ile Phe  
50 55 60

Cys Gly Gln Ile Trp Pro Val Asp Gln Gln Leu Tyr Tyr Lys Ser Tyr  
65 70 75 80

Phe Leu Phe Ile Phe Gly Ile Glu Phe Val Gly Pro Val Val Thr Met  
85 90 95

Thr Leu Cys Tyr Ala Arg Ile Ser Arg Glu Leu Trp Phe Lys Ala Val  
100 105 110

Pro Gly Phe Gln Thr Glu Gln Ile Arg Lys Arg Leu Arg Cys Arg Arg  
115 120 125

Lys Thr Val Leu Val Leu Met Cys Ile Leu Thr Ala Tyr Val Leu Cys  
130 135 140

Trp Ala Pro Phe Tyr Gly Phe Thr Ile Val Arg Asp Phe Phe Pro Thr  
145 150 155 160

Val Phe Val Lys Glu Lys His Tyr Leu Thr Ala Phe Tyr Ile Val Glu  
165 170 175

Cys Ile Ala Met Ser Asn Ser Met Ile Asn Thr Leu Cys Phe Val Thr  
180 185 190

Val Lys Asn Asp Thr Val Lys Tyr Phe Lys Lys Ile Met Leu Leu  
195 200 205

<210> 35  
<211> 483  
<212> DNA  
<213> Homo sapiens

<400> 35  
cagccacact gcagtgatga aatcaaagt ccaacaccaa ccatagtcac cattactaac 60  
taagaagcca caaaacttcc cttccagggt gttcagcagc agggacaggg cccagggcag 120  
ggcacacatg acagttgaca ggtttcttgg gcagcagcag cagtaccaga taggccgcag 180  
gacagacagg cagcactcag tactgatggc actcagcatg ctcaggccta caaggtaggc 240  
aaaggatcatc acgctggtga agaagctagg gaaattgatg gagatggaac agaagaagtt 300  
actgaggttac accaggcaat ttataatctg gaagcagagg aagaggaagt cggccccggc 360  
caggctgagg acgtagacag agaaggcgtt cctgcgcatg cggaagccca ggagccagag 420  
cacaaacccg tttcctacca gcccgaccag ggcaatgaaa aggatcagga agaccgggat 480  
cag 483

<210> 36

<211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 36

Leu Ile Pro Val Phe Leu Ile Leu Phe Ile Ala Leu Val Gly Leu Val  
 1 5 10 15  
 Gly Asn Gly Phe Val Leu Trp Leu Leu Gly Phe Arg Met Arg Arg Asn  
 20 25 30  
 Ala Phe Ser Val Tyr Val Leu Ser Leu Ala Gly Ala Asp Phe Leu Phe  
 35 40 45  
 Leu Cys Phe Gln Ile Ile Asn Cys Leu Val Tyr Leu Ser Asn Phe Phe  
 50 55 60  
 Cys Ser Ile Ser Ile Asn Phe Pro Ser Phe Phe Thr Ser Val Met Thr  
 65 70 75 80  
 Phe Ala Tyr Leu Val Gly Leu Ser Met Leu Ser Ala Ile Ser Thr Glu  
 85 90 95  
 Cys Cys Leu Ser Val Leu Arg Pro Ile Trp Tyr Cys Cys Cys Cys Pro  
 100 105 110  
 Arg Asn Leu Ser Thr Val Met Cys Ala Leu Pro Trp Ala Leu Ser Leu  
 115 120 125  
 Leu Leu Asn Thr Leu Glu Gly Lys Phe Cys Gly Phe Leu Val Ser Asn  
 130 135 140  
 Gly Asp Tyr Gly Trp Cys Trp Thr Phe Asp Phe Ile Thr Ala Val Trp  
 145 150 155 160

Leu

<210> 37  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 37

gagagtctga ttctgactta catcacatat gtaggcctgg gcatttctat ttgcagcctg 60  
 atcctttgct tgtccgttga ggtcctagtc tggagccaag tgacaaagac agagatcacc 120  
 tatttacgcc atgtgtgcat tgttaacatt gcagccactt tgctgatggc agatgtgtgg 180  
 ttcatgtgg cttcctttct tagtggccca ataacacacc acaagggatg tgtggcagcc 240  
 acattttttg gtcatttctt ttaccttct gtatttttct ggatgcttgc caaggcactc 300  
 cttatcctct atggaatcat gattgttttc 330

<210> 38  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 38

## 00431PHRM293.ST25.txt

Glu Ser Leu Ile Leu Thr Tyr Ile Thr Tyr Val Gly Leu Gly Ile Ser  
1 5 10 15

Ile Cys Ser Leu Ile Leu Cys Leu Ser Val Glu Val Leu Val Trp Ser  
20 25 30

Gln Val Thr Lys Thr Glu Ile Thr Tyr Leu Arg His Val Cys Ile Val  
35 40 45

Asn Ile Ala Ala Thr Leu Leu Met Ala Asp Val Trp Phe Ile Val Ala  
50 55 60

Ser Phe Leu Ser Gly Pro Ile Thr His His Lys Gly Cys Val Ala Ala  
65 70 75 80

Thr Phe Phe Gly His Phe Phe Tyr Leu Ser Val Phe Phe Trp Met Leu  
85 90 95

Ala Lys Ala Leu Leu Ile Leu Tyr Gly Ile Met Ile Val Phe  
100 105 110

<210> 39

<211> 628

<212> DNA

<213> Homo sapiens

<400> 39

ttgtgtggca gtagagagat gtcaggcttc agagtcaaca agaactggat ttcaaactgg 60  
at ttgaggac cccacacctt ggtaagtgc ttattatctg cgagcctctg tttctctctt 120  
ctttaaataa ggacagtaaa tcccatcagg cagggtggtg gggagaatca gagatgatac 180  
agctggtgat cacatctggt ttgtgttccc aggggcacca gactagggtt tctgagcatg 240  
gatccaaccg tccagctctt cggtaaaaa ctgacaccaa tcaacggacg tgaggagact 300  
ccttgctaca atcagaccct gagcttcacg gtgctgacgt gcatcatttc ccttgctcga 360  
ctgacaggaa acgcggtagt gctctggctc ctgggctacc gcatgcgcag gaacgctgtc 420  
tccatctaca tcctcaacct ggccgcagca gacttcctct tcctcagctt ccagattata 480  
cgttcgccat tacgcctcat caatatcagc catctcatcc gcaaaatcct cgtttctgtg 540  
atgacctttc cctactttac aggcctgagt atgctgagcg ccatcagcac cgagcgctgc 600  
ctgtctgttc tgtggcccat ctggtacc 628

<210> 40

<211> 205

<212> PRT

<213> Homo sapiens

<400> 40

Leu Cys Gly Ser Arg Glu Met Ser Gly Phe Arg Val Asn Lys Asn Trp  
1 5 10 15

Ile Ser Asn Trp Ile Gly Pro Pro Pro Leu Val Ser Asp Leu Leu Ser  
20 25 30

Ala Ser Leu Cys Phe Ser Leu Leu Met Arg Thr Val Asn Pro Ile Arg  
35 40 45

00431PHRM293.ST25.txt

Gln Gly Gly Gly Glu Asn Gln Arg Tyr Ser Trp Ser His Leu Val Cys  
50 55 60  
Val Pro Arg Gly Thr Arg Leu Gly Phe Leu Ser Met Asp Pro Thr Val  
65 70 75 80  
Pro Val Phe Gly Thr Lys Leu Thr Pro Ile Asn Gly Arg Glu Glu Thr  
85 90 95  
Pro Cys Tyr Asn Gln Thr Leu Ser Phe Thr Val Leu Thr Cys Ile Ile  
100 105 110  
Ser Leu Val Gly Leu Thr Gly Asn Ala Val Val Leu Trp Leu Leu Gly  
115 120 125  
Tyr Arg Met Arg Arg Asn Ala Val Ser Ile Tyr Ile Leu Asn Leu Ala  
130 135 140  
Ala Ala Asp Phe Leu Phe Leu Ser Phe Gln Ile Ile Arg Ser Pro Leu  
145 150 155 160  
Arg Leu Ile Asn Ile Ser His Leu Ile Arg Lys Ile Leu Val Ser Val  
165 170 175  
Met Thr Phe Pro Tyr Phe Thr Gly Leu Ser Met Leu Ser Ala Ile Ser  
180 185 190  
Thr Glu Arg Cys Leu Ser Val Leu Trp Pro Ile Trp Tyr  
195 200 205

<210> 41  
<211> 319  
<212> DNA  
<213> Homo sapiens

<400> 41  
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ctgcccttct ttgtcttgac gatcacagat cctttcatta attttacaac ccttgaagat 120  
ctgtacaatg tcttctcttg gctaggctat ttcaactctg ctttcaatcc cattttatat 180  
ggcatgcttt atccttggtt tcgcaaggca ttgaggatga ttgtcacagg catgatcttc 240  
caccctgact cttccaccct aagcctgttt tctgcccatt cttaggctgt gttcatcatt 300  
caataggact cttttctgg 319

<210> 42  
<211> 103  
<212> PRT  
<213> Homo sapiens

<400> 42  
Thr Glu Ser Lys Ala Thr Arg Thr Leu Gly Ile Val Met Gly Val Phe  
1 5 10 15  
Val Leu Cys Trp Leu Pro Phe Phe Val Leu Thr Ile Thr Asp Pro Phe  
20 25 30  
Ile Asn Phe Thr Thr Leu Glu Asp Leu Tyr Asn Val Phe Leu Trp Leu  
35 40 45

00431PHRM293.ST25.txt

Gly Tyr Phe Asn Ser Ala Phe Asn Pro Ile Leu Tyr Gly Met Leu Tyr  
 50 55 60  
 Pro Trp Phe Arg Lys Ala Leu Arg Met Ile Val Thr Gly Met Ile Phe  
 65 70 75 80  
 His Pro Asp Ser Ser Thr Leu Ser Leu Phe Ser Ala His Ala Ala Val  
 85 90 95  
 Phe Ile Ile Gln Asp Ser Phe  
 100

<210> 43  
 <211> 515  
 <212> DNA  
 <213> Homo sapiens

<400> 43  
 taggaatctc agagaagaaa gtaaggaacc agaaaacccat aaaagaatgt aaatggaaaa 60  
 gaatcagcaa atcttattca cttatcacta aatctaaaat atgtcaaaat acatgaagac 120  
 aacaaatgct ttagaacaac tgttgaatgt attgtcctac aacttggcat atgatcatgc 180  
 ttgcctctct atgtccaagt gtttattttt gcagttgacc ttaatttcaa gttagttttg 240  
 aggtctctac agtaatgttt ttaatctgtc tctacttctt cagaaaataa attagttgtt 300  
 gacgaatcag tccttaagac cttgccgctt acaataagtt ttattgcctt cccaaacccat 360  
 tggtaaaaga aagcataaat caaggggttc atagctgaat tataataaac acaccaaact 420  
 aaaatctcat aacataagg aggagttata aaattcatat aagcatcaat cactgcatca 480  
 acgaggtatg gtagccaaga gacaagaaat gctgc 515

<210> 44  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 44  
 Leu His Gln Arg Gly Met Val Ala Lys Arg Gln Glu Met Leu Ala Ala  
 1 5 10 15  
 Phe Leu Val Ser Trp Leu Pro Tyr Leu Val Asp Ala Val Ile Asp Ala  
 20 25 30  
 Tyr Met Asn Phe Ile Thr Pro Pro Tyr Val Tyr Glu Ile Leu Val Trp  
 35 40 45  
 Cys Val Tyr Tyr Asn Ser Ala Met Asn Pro Leu Ile Tyr Ala Phe Phe  
 50 55 60  
 Tyr Gln Trp Phe Gly Lys Ala Ile Lys Leu Ile Val Ser Gly Lys Val  
 65 70 75 80  
 Leu Arg Thr Asp Ser Ser Thr Thr Asn Leu Phe Ser Glu Glu Val Glu  
 85 90 95  
 Thr Asp Lys His Tyr Cys Arg Asp Leu Lys Thr Asn Leu Lys Leu Arg  
 100 105 110

Ser Thr Ala Lys Ile Asn Thr Trp Thr Arg Gly Lys His Asp His Met  
 115 120 125

Pro Ser Cys Arg Thr Ile His Ser Thr Val Val Leu Lys His Leu Leu  
 130 135 140

Ser Ser Cys Ile  
 145

<210> 45  
 <211> 726  
 <212> DNA  
 <213> Homo sapiens

<400> 45  
 ctggaaagag gtcctcgatc taccctctac gccgtccttg gttttggggc tgtgctggca 60  
 gcgtttggaa acttactggg catgattgct atccttcact tctaacaact gcacacacct 120  
 acaaactttc tgattgcgtc gctggcctgt gctgacttct tgggtgggagt cactgtgatg 180  
 cccttcagca cagtgaggtc tgtggagagc tgttggtact ttggggacag ttactgtaaa 240  
 ttccatacat gttttgacac atctttctgt tttgcttctt tatttcattt atgctgtatc 300  
 tctgttgata gatacattgc tgttactgat cctctgacct atccaaccaa gtttactgtg 360  
 tcagtttcag ggatatgcat tgttctttcc tggttctttt ctgtcacata cagcttttcg 420  
 atcttttaca cgggagccaa cgaagaagga attgaggaat tagtagttgc tctaacctgt 480  
 gtaggaggct gccaggctcc actgaatcaa aactgggtcc tactttgttt tcttctattc 540  
 tttataccca atgtcgccat ggtgtttata tacagtaaga tatttttggg ggccaagcat 600  
 caggctagga agatagaaag tacagccagc caagctcagt ccttctcaga gagttacaag 660  
 gaaagagtag caaaaagaga gagaaaggct gccaaaacct tgggaattgc tatggcagca 720  
 tttctt 726

<210> 46  
 <211> 241  
 <212> PRT  
 <213> Homo sapiens

<400> 46

Leu Glu Arg Gly Pro Arg Ser Ile Leu Tyr Ala Val Leu Gly Phe Gly  
 1 5 10 15

Ala Val Leu Ala Ala Phe Gly Asn Leu Leu Val Met Ile Ala Ile Leu  
 20 25 30

His Phe Gln Leu His Thr Pro Thr Asn Phe Leu Ile Ala Ser Leu Ala  
 35 40 45

Cys Ala Asp Phe Leu Val Gly Val Thr Val Met Pro Phe Ser Thr Val  
 50 55 60

Arg Ser Val Glu Ser Cys Trp Tyr Phe Gly Asp Ser Tyr Cys Lys Phe  
 65 70 75 80



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His Thr Cys Phe Asp Thr Ser Phe Cys Phe Ala Ser Leu Phe His Leu  
85 90 95  
Cys Cys Ile Ser Val Asp Arg Tyr Ile Ala Val Thr Asp Pro Leu Thr  
100 105 110  
Tyr Pro Thr Lys Phe Thr Val Ser Val Ser Gly Ile Cys Ile Val Leu  
115 120 125  
Ser Trp Phe Phe Ser Val Thr Tyr Ser Phe Ser Ile Phe Tyr Thr Gly  
130 135 140  
Ala Asn Glu Glu Gly Ile Glu Glu Leu Val Val Ala Leu Thr Cys Val  
145 150 155 160  
Gly Gly Cys Gln Ala Pro Leu Asn Gln Asn Trp Val Leu Leu Cys Phe  
165 170 175  
Leu Leu Phe Phe Ile Pro Asn Val Ala Met Val Phe Ile Tyr Ser Lys  
180 185 190  
Ile Phe Leu Val Ala Lys His Gln Ala Arg Lys Ile Glu Ser Thr Ala  
195 200 205  
Ser Gln Ala Gln Ser Phe Ser Glu Ser Tyr Lys Glu Arg Val Ala Lys  
210 215 220  
Arg Glu Arg Lys Ala Ala Lys Thr Leu Gly Ile Ala Met Ala Ala Phe  
225 230 235 240

Leu

<210> 47  
<211> 660  
<212> DNA  
<213> Homo sapiens

<400> 47  
aaccaggtgg ccttactcct aagaccctg gccttgctta tggcctttat caacagctgt 60  
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ctgctagctg ccttagaacg ggcacttagc gaggagccag atagtgcctg aatcccagct 180  
cccaggcaga tgagtccttt ataacatgac ccaatttcct actccatttt cccaccactc 240  
aatcctcttc ccaaacagct ctaccataat ccaacatcca acagaattta agagaataaa 300  
ccacaacttt taagttagct ctatgtgcta ggtcatgttt tagaatacaa ccttaagtgc 360  
ctggaagatg gaggcaagaa acaacaagg tctcattctt tagaggaaga cagttcacca 420  
agactcaaac agaaaaaag atagttatct tgtgacaaa caagtcataa aattgggtca 480  
ggacctgcag caatgacttt atgctagaat ccagagcact agcaggaaac tgcttaaatt 540  
ttacttaatc aaagtcaagt ttggacatac atgtcaggta aaacctagca gagatgagct 600  
accttgatgt taaaacttca agggatagct caatgtcatc aagatccttt tgatgacttg 660

<210> 48  
<211> 211  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 48

Asn Gln Val Ala Leu Leu Leu Arg Pro Leu Ala Leu Ser Met Ala Phe  
 1 5 10 15  
 Ile Asn Ser Cys Leu Asn Pro Val Leu Tyr Val Phe Ile Gly His Asp  
 20 25 30  
 Phe Trp Glu His Leu Leu His Ser Leu Leu Ala Ala Leu Glu Arg Ala  
 35 40 45  
 Leu Ser Glu Glu Pro Asp Ser Ala Ile Pro Ala Pro Arg Gln Met Ser  
 50 55 60  
 Pro Leu His Asp Pro Ile Ser Tyr Ser Ile Phe Pro Pro Leu Asn Pro  
 65 70 75 80  
 Leu Pro Lys Gln Leu Tyr His Asn Pro Thr Ser Asn Arg Ile Glu Asn  
 85 90 95  
 Lys Pro Gln Leu Leu Ser Glu Leu Tyr Val Leu Gly His Val Leu Glu  
 100 105 110  
 Tyr Asn Leu Lys Cys Leu Glu Asp Gly Gly Lys Lys Gln Thr Arg Ser  
 115 120 125  
 His Ser Leu Glu Glu Asp Ser Ser Pro Arg Leu Lys Gln Lys Lys Arg  
 130 135 140  
 Leu Ser Cys Asp Lys Thr Ser His Lys Ile Gly Ser Gly Pro Ala Ala  
 145 150 155 160  
 Met Thr Leu Cys Asn Pro Glu His Gln Glu Thr Ala Ile Leu Leu Asn  
 165 170 175  
 Gln Ser Gln Val Trp Thr Tyr Met Ser Gly Lys Thr Gln Arg Ala Thr  
 180 185 190  
 Leu Ile Leu Lys Leu Gln Gly Ile Ala Gln Cys His Gln Asp Pro Phe  
 195 200 205  
 Asp Asp Leu  
 210

&lt;210&gt; 49

&lt;211&gt; 465

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 49

gcttggttcac ggccaccatc ctcaagctgt tgcgcacgga ggaggcgacac ggccgggagc 60  
 agcggaggcg cgcggtgggc ctggccgcgg tggctcttgc ggcctttgtc acctgcttcg 120  
 cccccaacaa cttcgtgctc ctggcgacac tcgtgagccg cctgttctac ggcaagagct 180  
 actaccacgt gtacaagctc acgctgtgtc tcagctgcct caacaactgt ctggaccctg 240  
 ttgtttatta ctttgcgtcc cggaattcc agctgcgcct gcgggaatat ttgggctgcc 300  
 gccgggtgcc cagagacacc ctggacacgc gccgcgagag cctcttctcc gccaggacca 360  
 cgtccgtgcg ctccgaggcc ggtgcgcacc ctgaagggat ggaggagacc accaggcccg 420

gcctccagag gcaggagagt gtgttctgag tccccggggc gcagc

465

<210> 50  
 <211> 160  
 <212> PRT  
 <213> Homo sapiens

<400> 50

Leu Phe Thr Ala Thr Ile Leu Lys Leu Leu Arg Thr Glu Glu Ala His  
 1 5 10 15

Gly Arg Glu Gln Arg Arg Arg Ala Val Gly Leu Ala Ala Val Val Leu  
 20 25 30

Leu Ala Phe Val Thr Cys Phe Ala Pro Asn Asn Phe Val Leu Leu Ala  
 35 40 45

His Ile Val Ser Arg Leu Phe Tyr Gly Lys Ser Tyr Tyr His Val Tyr  
 50 55 60

Lys Leu Thr Leu Cys Leu Ser Cys Leu Asn Asn Cys Leu Asp Pro Phe  
 65 70 75 80

Val Tyr Tyr Phe Ala Ser Arg Glu Phe Gln Leu Arg Leu Arg Glu Tyr  
 85 90 95

Leu Gly Cys Arg Arg Val Pro Arg Asp Thr Leu Asp Thr Arg Arg Glu  
 100 105 110

Ser Leu Phe Ser Ala Arg Thr Thr Ser Val Arg Ser Glu Ala Gly Ala  
 115 120 125

His Pro Glu Gly Met Glu Gly Ala Thr Arg Pro Gly Leu Gln Arg Gln  
 130 135 140

Glu Ser Val Phe Val Pro Gly Ala Gln Ala Ala Pro Pro Gly Leu Arg  
 145 150 155 160

<210> 51  
 <211> 603  
 <212> DNA  
 <213> Homo sapiens

<400> 51

ttacttattc tgccctttat ccaactttta attccctttg ctattctcct gcctcatttt 60

ctggcctcat tttccctatt atcctgcctc acattgatca agggatgagg ctggcaggat 120

ccggaacca cagggcccg tgggccatga gaggtcctg gacttgaacc tcaggacact 180

cccactctgg ctgccggcag ggatggaagc tggatgagca ggcaggagct ggcagtgggg 240

gtggagagcc ataggtatt ggggtggaca ggcttgggtg cctcatggga gctccccatg 300

ggagctgtgg ccccttgggg cctcttattt ctcaccccag gctttcccgg gagaggttca 360

agtcagaaga tgcccaaag atccacgtgg ccctgggtgg cagcctgttc ctcctgaatc 420

tggccttctt ggtcaatgtg gggagtggct caaaggggtc tgatgctgcc tgctggggcc 480

ggggggctgt cttccactac ttctgtctct gtgccttcac ctggatgggc cttgaagcct 540

tccacctcta cctgctcgct gtcaggtct tcaacaccta cttcgggcac tacttcctga 600  
agc 603

<210> 52  
<211> 198  
<212> PRT  
<213> Homo sapiens

<400> 52

Glu Thr Tyr Ser Ala Leu Tyr Pro Thr Phe Asn Ser Leu Cys Tyr Ser  
1 5 10 15  
Pro Ala Ser Phe Ser Gly Leu Ile Phe Pro Ile Ile Leu Pro His Ile  
20 25 30  
Asp Gln Gly Met Arg Leu Ala Gly Ser Gly Thr His Arg Ala Pro Trp  
35 40 45  
Ala Met Arg Gly Ser Trp Thr Thr Ser Gly His Ser His Ser Gly Cys  
50 55 60  
Arg Gln Gly Trp Lys Leu Asp Glu Gln Ala Gly Ala Gly Ser Gly Gly  
65 70 75 80  
Gly Glu Pro Ala Ile Gly Val Asp Arg Leu Gly Cys Leu Met Gly Ala  
85 90 95  
Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser His Pro Arg  
100 105 110  
Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His Val  
115 120 125  
Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val Asn  
130 135 140  
Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg Gly  
145 150 155 160  
Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly Leu  
165 170 175  
Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr Tyr  
180 185 190  
Phe Gly His Tyr Phe Leu  
195

<210> 53  
<211> 335  
<212> DNA  
<213> Homo sapiens

<400> 53

aattggtcgg agagtgcagc tgcttgaaat ggaggattga aatcatcacc aggaggtttc 60  
caaacacagc cagcacagcc ccaaagccaa acactatgta cagaatcacc cgggatcccg 120  
gcgagaaggg gattttcaca caggacccat tcacgttcgc gtagcacagc tgcacagcca 180  
ccagcagggg tgaattgctg ctcataacgc tggatatttac atatggagaa attttgtcct 240

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 tgttgattat cacaaaaaat acaggattgt tcctgatttt cattgctcct gcggaaaaaa 300  
 acacatatcc accaggatgc cagaggaaat gatca 335

<210> 54  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 54

Asp His Phe Leu Trp His Pro Gly Glu Tyr Val Phe Phe Ser Ala Gly  
 1 5 10 15  
 Ala Met Lys Ile Arg Asn Asn Pro Val Phe Phe Val Ile Ile Asn Lys  
 20 25 30  
 Asp Lys Ile Ser Pro Tyr Val Asn Thr Ser Val Met Ser Ser Asn Ser  
 35 40 45  
 Ser Leu Leu Val Ala Val Gln Leu Cys Tyr Ala Asn Val Asn Gly Ser  
 50 55 60  
 Cys Val Lys Ile Pro Phe Ser Pro Gly Ser Arg Val Ile Leu Tyr Ile  
 65 70 75 80  
 Val Phe Gly Phe Gly Ala Val Leu Ala Val Phe Gly Asn Leu Leu Val  
 85 90 95  
 Met Ile Ser Ile Leu His Phe Lys Gln Leu His Ser Pro Thr Asn  
 100 105 110

<210> 55  
 <211> 586  
 <212> DNA  
 <213> Homo sapiens

<400> 55

cacatcttaa caagactgaa aaacattgat ttgttttttaa tttgaagagc aatttatttg 60  
 ctattcattc atagtcttac ttgattttta aaaactcatt tcgcttggtta attttaaggg 120  
 taccctgaac ttcgtctatc caactgctta tatatgttca gaaaacaaat tcatgggtgc 180  
 tgaactgttc tttaaaacct gaccagttac aataactttt attgctttcc taaacctagg 240  
 gtaaaataaa gcataaatca aaggattcat ggctgaggtta taataagcac accaacagca 300  
 tcataaatac aggaggggt tataaagccc ataaaggcat caattaatga atcaatgcta 360  
 tatggtaacc atgaaatcat aaatgctacc actgtgaccc ccagggtttt agctgctttt 420  
 ctctctctcc tggccactct ggctttgtaa ctctctgagg atgattctgt cttgctacca 480  
 gtattttcta tctttttcgc ctgtcgtcta gccacaagaa atatgttacc atacagaatt 540  
 atcataataa aggtagggtat aaagaaggat agaaaatctg tcaaca 586

<210> 56  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 56

Leu Thr Asp Phe Leu Ser Phe Phe Ile Pro Thr Phe Ile Met Ile Ile  
 1 5 10 15  
 Leu Tyr Gly Asn Ile Phe Leu Val Ala Arg Arg Gln Ala Lys Lys Ile  
 20 25 30  
 Glu Asn Thr Gly Ser Lys Thr Glu Ser Ser Ser Glu Ser Tyr Lys Ala  
 35 40 45  
 Arg Val Ala Arg Arg Glu Arg Lys Ala Ala Lys Thr Leu Gly Val Thr  
 50 55 60  
 Val Val Ala Phe Met Ile Ser Trp Leu Pro Tyr Ser Ile Asp Ser Leu  
 65 70 75 80  
 Ile Asp Ala Phe Met Gly Phe Ile Thr Pro Ala Cys Ile Tyr Glu Ile  
 85 90 95  
 Cys Cys Trp Cys Ala Tyr Tyr Asn Ser Ala Met Asn Pro Leu Ile Tyr  
 100 105 110  
 Ala Leu Phe Tyr Pro Trp Phe Arg Lys Ala Ile Lys Val Ile Val Thr  
 115 120 125  
 Gly Gln Val Leu Lys Asn Ser Ser Ala Thr Met Asn Leu Phe Ser Glu  
 130 135 140  
 His Ile Ala Val Gly Thr Lys Phe Arg Ile Pro Leu Lys Leu Pro Ser  
 145 150 155 160  
 Glu Met Ser Phe Lys Ser Ser Lys Thr Met Asn Glu Gln Ile Asn Cys  
 165 170 175  
 Ser Ser Asn Lys Gln Ile Asn Val Phe Gln Ser Cys Asp Val  
 180 185 190

&lt;210&gt; 57

&lt;211&gt; 976

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

tttgtggcaa ggagaccctg atcccggtct tcctgatacct tttcattgcc ctggtcgggc 60  
 tggtaggaaa cgggtttgtg ctctggctcc tgggcttccg catgcgcagg aacgccttct 120  
 ctgtctacgt cctcagcctg gccggggccg acttcctctt cctctgcttc cagattataa 180  
 attgcctggt gtacctcagt aacttcttct gttccatctc catcaatttc cctagcttct 240  
 tcaccactgt gatgacctgt gcctaccttg caggcctgag catgctgagc accgtcagca 300  
 ccgagcgctg cctgtccgtc ctgtggccca tctgggtatcg ctgccgccgc ccagacacc 360  
 tgtcagcggg cgtgtgtgtc ctgtctctggg ccctgtccct actgctgagc atcttggaag 420  
 ggaagtctctg tggcttctta tttagtgatg gtgactctgg ttggtgtcag acatttgatt 480  
 tcatcactgc agcgtggctg atttttttat tcatggttct ctgtgggtcc agtctggccc 540  
 tgctgggtcag gatcctctgt ggctccaggg gtctgccact gaccaggctg tacctgacca 600  
 tcctgtctcac agtgtctggtg tcctctctct gcggcctgcc ctttggcatt cagtgggtcc 660

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taatattatg gatctggaag gattctgatg tcttattttg tcatattcat ccagtttcag      720
ttgtcctgtc atctcttaac agcagtgcc accccatcat ttacttcttc gtgggctctt      780
ttaggaagca gtggcggstg cagcaccga tcctcaagct ggctctccag agggctctgc      840
aggacattgc tgaggtggat cacagtgaag gatgcttccg tcagggcacc cggagattca      900
aagaagcatt ctggtgtagg gatggacccc tctacttcca tcatatatat gtggctttga      960
gaggcaactt tgcccc                                                         976

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<210> 58
<211> 324
<212> PRT
<213> Homo sapiens

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<220>
<221> UNSURE
<222> (266)..(266)
<223> Xaa is Unknown

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<400> 58
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Cys Gly Lys Glu Thr Leu Ile Pro Val Phe Leu Ile Leu Phe Ile Ala
1          5          10          15
Leu Val Gly Leu Val Gly Asn Gly Phe Val Leu Trp Leu Leu Gly Phe
20        25        30
Arg Met Arg Arg Asn Ala Phe Ser Val Tyr Val Leu Ser Leu Ala Gly
35        40        45
Ala Asp Phe Leu Phe Leu Cys Phe Gln Ile Ile Asn Cys Leu Val Tyr
50        55        60
Leu Ser Asn Phe Phe Cys Ser Ile Ser Ile Asn Phe Pro Ser Phe Phe
65        70        75        80
Thr Thr Val Met Thr Cys Ala Tyr Leu Ala Gly Leu Ser Met Leu Ser
85        90        95
Thr Val Ser Thr Glu Arg Cys Leu Ser Val Leu Trp Pro Ile Trp Tyr
100       105       110
Arg Cys Arg Arg Pro Arg His Leu Ser Ala Val Val Cys Val Leu Leu
115       120       125
Trp Ala Leu Ser Leu Leu Leu Ser Ile Leu Glu Gly Lys Phe Cys Gly
130       135       140
Phe Leu Phe Ser Asp Gly Asp Ser Gly Trp Cys Gln Thr Phe Asp Phe
145       150       155       160
Ile Thr Ala Ala Trp Leu Ile Phe Leu Phe Met Val Leu Cys Gly Ser
165       170       175
Ser Leu Ala Leu Leu Val Arg Ile Leu Cys Gly Ser Arg Gly Leu Pro
180       185       190
Leu Thr Arg Leu Tyr Leu Thr Ile Leu Leu Thr Val Leu Val Ser Leu
195       200       205

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Leu Cys Gly Leu Pro Phe Gly Ile Gln Trp Phe Leu Ile Leu Trp Ile  
 210 215 220

Trp Lys Asp Ser Asp Val Leu Phe Cys His Ile His Pro Val Ser Val  
 225 230 235 240

Val Leu Ser Ser Leu Asn Ser Ser Ala Asn Pro Ile Ile Tyr Phe Phe  
 245 250 255

Val Gly Ser Phe Arg Lys Gln Trp Arg Xaa Gln His Pro Ile Leu Lys  
 260 265 270

Leu Ala Leu Gln Arg Ala Leu Gln Asp Ile Ala Glu Val Asp His Ser  
 275 280 285

Glu Gly Cys Phe Arg Gln Gly Thr Arg Arg Phe Lys Glu Ala Phe Trp  
 290 295 300

Cys Arg Asp Gly Pro Leu Tyr Phe His His Ile Tyr Val Ala Leu Arg  
 305 310 315 320

Gly Asn Phe Ala

<210> 59  
 <211> 578  
 <212> DNA  
 <213> Homo sapiens

<400> 59  
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 gtaacagggt accaaagggtg ttcagagcag cataatgggtc tagaaacgat gtaagcttca 120  
 tggatctgat tctcaatgga acaactgatt gaaagcaggc tgagattcga tcctgaatga 180  
 ccctcaagat atggaagggt aaaaaacata cgtaaaatgc aaggagtagc agaattggta 240  
 gccttcgtgc tttctgctta aggcagctgt cagtttgagc tccatgggtc aaagtgtgga 300  
 taatcgtggt atagcaaagt gtcactatca ccaaggggag gcagaaagta cttgcagtca 360  
 aaatcagggt gtaccactta atagtattga gttcatccga actggtgagg tcgagacagg 420  
 ctgatctgtt ggtcctgttg gttgatgtga tcaagaaggt catcggaatg acagctacca 480  
 gtgaaatgat ccacaccaca gcacaggcta caactgcaca tcgagttttg tgaatggaaa 540  
 agcagctcat tgggtgaatg atcacacagt agcggaag 578

<210> 60  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<400> 60  
 Phe Arg Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile His  
 1 5 10 15

Lys Thr Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile Ser  
 20 25 30



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Leu Val Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn Arg  
 35 40 45

Thr Asn Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu Asn  
 50 55 60

Thr Ile Lys Trp Tyr Asn Leu Ile Leu Thr Ala Ser Thr Phe Cys Leu  
 65 70 75 80

Pro Leu Val Ile Val Thr Leu Cys Tyr Thr Thr Ile Ile His Thr Leu  
 85 90 95

Thr His Gly Leu Gln Thr Asp Ser Cys Leu Lys Gln Lys Ala Arg Arg  
 100 105 110

Leu Thr Ile Leu Leu Leu Leu Ala Phe Tyr Val Cys Phe Leu Pro Phe  
 115 120 125

His Ile Leu Arg Val Ile Gln Asp Arg Ile Ser Ala Cys Phe Gln Ser  
 130 135 140

Val Val Pro Leu Arg Ile Arg Ser Met Lys Leu Thr Ser Phe Leu Asp  
 145 150 155 160

His Tyr Ala Ala Leu Asn Thr Phe Gly Asn Leu Leu Leu Tyr Val Val  
 165 170 175

Val Ser Asp Asn Phe Gln Gln Ala Val Cys Ser Thr Val Arg Cys Lys  
 180 185 190

<210> 61

<211> 872

<212> DNA

<213> Homo sapiens

<400> 61

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gggagggtc gtagacacac taacctacc cttctgttt cttctcatc ttctcttcc 60
atctgtttct catgggtctc tgtctgtctc tctctctctc cctctttct ctctctcgc 120
tctttctcat cccctccatt tctgtgtcaa tctcaatcca tttatatcg tggccacttt 180
tctatctctt tgttctatct ctctctctct ctctttccca ctttgtctct gcacgcctgt 240
tgtgtttttc tgctgtctc tctcttgccc tcatctctct gtctctctct tgccctcatc 300
tctctgtctc tctgtgtctg tgtctcccc gtcattccc atttgaggt gcaatgtagc 360
aggacaactc atggagcccc cccgggccca tcgagtaccg gactggctga cccctaggg 420
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tatgtgcgtg agcctggcgg gtaacgccat cttgtccctg ctggtgctca aggagcgggc 600
cctgcacaag gtccttact acttctgtct ggacctgtgc ctggccgatg gcatacgctc 660
tgccgtctgc ttcccccttg tgctggcttc tgtgcgccac ggctcttcat ggaccttcag 720
tgactcagc tgcaagattg tggcctttat ggccgtgtc ttttgcttcc atgcggcctt 780
catgctgttc tgcatcagcg tcaccgcgta catggccatc gccaccacc gcttctacgc 840
caagcgcgtg acactctgga catgcgcggc tg 872

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<210> 62  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 62

Met Ala Asn Thr Thr Gly Glu Pro Glu Glu Val Ser Gly Ala Leu Ser  
 1 5 10 15

Pro Pro Ser Ala Ser Ala Tyr Val Lys Leu Val Leu Leu Gly Leu Ile  
 20 25 30

Met Cys Val Ser Leu Ala Gly Asn Ala Ile Leu Ser Leu Leu Val Leu  
 35 40 45

Lys Glu Arg Ala Leu His Lys Ala Pro Tyr Tyr Phe Leu Leu Asp Leu  
 50 55 60

Cys Leu Ala Asp Gly Ile Arg Ser Ala Val Cys Phe Pro Phe Val Leu  
 65 70 75 80

Ala Ser Val Arg His Gly Ser Ser Trp Thr Phe Ser Ala Leu Ser Cys  
 85 90 95

Lys Ile Val Ala Phe Met Ala Val Leu Phe Cys Phe His Ala Ala Phe  
 100 105 110

Met Leu Phe Cys Ile Ser Val Thr Arg Tyr Met Ala Ile Ala His His  
 115 120 125

Arg Phe Tyr Ala Lys Arg Met Thr Leu Trp Thr Cys Ala Ala Glu  
 130 135 140

<210> 63  
 <211> 962  
 <212> DNA  
 <213> Homo sapiens

<400> 63

aaaaattgct gtactgaact attgaatgga acttggaat aaagtccctt ccaaaataac 60  
 tattcttcaa cagagagtaa taggtaaatg ttttagaagt gagaggactc aaattgccaa 120  
 tgatttactc ttttattttt cctcctaggt ttctgggata agtatgtgca aataaaaaat 180  
 aaacatgaga aggaactgta acctgattat ggatttgga aaaagataaa tcaacacaca 240  
 aagggaaaag taaactgatt gacagccctc aggaatgatg cccttttgcc acaatataat 300  
 taatatattcc tgtgtgaaaa acaactgggc aaatgatgtc cgtgcttccc tgtacagttt 360  
 aatgggtgctc ataattctga ccacactcgt tggcaatctg atagttattg tttctatatc 420  
 acacttcaaa caacttcata cccaacaaa ttggctcatt cattccatgg cactgtgga 480  
 ctttcttctg ggggtgtctg tcatgcctta cagtatgggt agatctgctg agcactgttg 540  
 gtattttgga gaagtcttct gtaaaattca cacaagcacc gacattatgc tgagctcagc 600  
 ctccattttc catttgtctt tcatctccat tgaccgctac tatgctgtgt gtgatccact 660  
 gagatataaa gccaaagatga atatcttggt tatttgtgtg atgatcttca ttagttggag 720

## 00431PHRM293.ST25.txt

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tgtccctgct gtttttgcatt ttggaatgat ctttctggag ctaaacttca aaggcgctga      780
agagatatat tacaacatg ttactgcag aggaggttgc tctgtcttct ttagcaaaat      840
atctggggta ctgaccttta tgacttcttt ttatatacct ggatctatta tgttatgtgt      900
ctattacaga atatatctta tcgctaaaga acaggcaaga ttaattagtg atgccaatca      960
ga                                                                           962

```

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<210> 64
<211> 238
<212> PRT
<213> Homo sapiens

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<400> 64
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Arg Glu Lys Thr Asp Gln Pro Ser Gly Met Met Pro Phe Cys His Asn
1      5      10
Ile Ile Asn Ile Ser Cys Val Lys Asn Asn Trp Ser Asn Asp Val Arg
20     25     30
Ala Ser Leu Tyr Ser Leu Met Val Leu Ile Ile Leu Thr Thr Leu Val
35     40     45
Gly Asn Leu Ile Val Ile Val Ser Ile Ser His Phe Lys Gln Leu His
50     55     60
Thr Pro Thr Asn Trp Leu Ile His Ser Met Ala Thr Val Asp Phe Leu
65     70     75     80
Leu Gly Cys Leu Val Met Pro Tyr Ser Met Val Arg Ser Ala Glu His
85     90     95
Cys Trp Tyr Phe Gly Glu Val Phe Cys Lys Ile His Thr Ser Thr Asp
100    105    110
Ile Met Leu Ser Ser Ala Ser Ile Phe His Leu Ser Phe Ile Ser Ile
115    120    125
Asp Arg Tyr Tyr Ala Val Cys Asp Pro Leu Arg Tyr Lys Ala Lys Met
130    135    140
Asn Ile Leu Val Ile Cys Val Met Ile Phe Ile Ser Trp Ser Val Pro
145    150    155    160
Ala Val Phe Ala Phe Gly Met Ile Phe Leu Glu Leu Asn Phe Lys Gly
165    170    175
Ala Glu Glu Ile Tyr Tyr Lys His Val His Cys Arg Gly Gly Cys Ser
180    185    190
Val Phe Phe Ser Lys Ile Ser Gly Val Leu Thr Phe Met Thr Ser Phe
195    200    205
Tyr Ile Pro Gly Ser Ile Met Leu Cys Val Tyr Tyr Arg Ile Tyr Leu
210    215    220
Ile Ala Lys Glu Gln Ala Arg Leu Ile Ser Asp Ala Asn Gln
225    230    235

```

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<210> 65
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<211> 1018  
 <212> DNA  
 <213> Homo sapiens

<400> 65  
 aacagtcccg ggtggaacct gggcatgtat attttgattg ttttatgcat actcctagtg 60  
 aagaaccaat gtcttgctca gatagaagca agatactcag acttagtttc tctgtagctc 120  
 ctgcttttta ttattcctgg ttggattgca ccactactca gtttctatct tataaactg 180  
 attataaaac atgggaggga aataactttg tattggtttt tatggataat ttattatgtg 240  
 tcctagactc tggccttgctc aaaagaagga cgtaagaagg cacgatgtat tatacttggg 300  
 aatgatagaa gagactgacc tggatatttc acccggaaga gggaaaggat ttaactaca 360  
 aatacaggaa tccagcagat ggcatcagag aacactataa aaaagaaacg atttgcaaca 420  
 gccacctctc ttccaaaaca attccttact tctgtggtct gcaaggcggg tttttgaatg 480  
 gaacagaaca tagtaataata ggaaaacaca atgatgagaa aagccagcaa gttcacacct 540  
 gttggggaaa agcacacttt taacatctca ggcgtaaaag tcaacagtaa aattactgtg 600  
 gtacagggtg agtatccctt acccaaaatg ttgaaacca gaaatgtttt ggatttcgga 660  
 tttcggaaata tttacacatt cataatgata tatcttgga atggttccca agtctaaaca 720  
 caaaatttat ttatgtttca tatacacctt atacacatag tctgaaagta attttgtaca 780  
 atattttaaa taattttggg catgaaacaa agtttgcata cattgaacca tcagacagca 840  
 aaagcttcag gtgtggaatt ttccacttgt ggcacatgt tgatgctcaa aaagttccat 900  
 attttagagc atttcaaatt ttggattttc aaattacaaa tgcttaacct gtacttagat 960  
 gttaaataca gtgcctcttc cacgggcact ttcaggaagc attcttttat ataagccc 1018

<210> 66  
 <211> 327  
 <212> PRT  
 <213> Homo sapiens

<400> 66

Tyr	Ile	Lys	Glu	Cys	Phe	Leu	Lys	Val	Pro	Val	Glu	Glu	Ala	Leu	Tyr
1				5					10					15	
Leu	Thr	Ser	Lys	Tyr	Arg	Leu	Ser	Ile	Cys	Asn	Leu	Lys	Ile	Gln	Asn
			20					25					30		
Leu	Lys	Cys	Ser	Lys	Ile	Trp	Asn	Phe	Leu	Ser	Ile	Asn	Met	Met	Pro
		35					40					45			
Gln	Val	Glu	Asn	Ser	Thr	Pro	Glu	Ala	Phe	Ala	Val	Trp	Phe	Asn	Val
	50					55					60				
Cys	Lys	Leu	Cys	Phe	Met	Pro	Lys	Ile	Ile	Asn	Ile	Val	Gln	Asn	Tyr
65					70					75				80	
Phe	Gln	Thr	Met	Cys	Ile	Arg	Cys	Ile	Asn	Ile	Asn	Lys	Phe	Cys	Val
				85					90					95	

## 00431PHRM293.ST25.txt

Thr Trp Glu Pro Phe Pro Arg Tyr Ile Ile Met Asn Val Ile Phe Arg  
 100 105 110  
 Asn Pro Lys Ser Lys Thr Phe Leu Val Ser Asn Ile Leu Gly Lys Gly  
 115 120 125  
 Tyr Ser Thr Cys Thr Thr Val Ile Leu Leu Leu Thr Phe Thr Pro Glu  
 130 135 140  
 Met Leu Lys Val Cys Phe Ser Pro Thr Gly Val Asn Leu Leu Ala Phe  
 145 150 155 160  
 Leu Ile Ile Val Phe Ser Tyr Ile Thr Met Phe Cys Ser Ile Gln Lys  
 165 170 175  
 Thr Ala Leu Gln Thr Thr Glu Val Arg Asn Cys Phe Gly Arg Glu Val  
 180 185 190  
 Ala Val Ala Asn Arg Phe Phe Phe Ile Val Phe Ser Asp Ala Ile Cys  
 195 200 205  
 Trp Ile Pro Val Phe Val Val Lys Ile Leu Ser Leu Phe Arg Val Glu  
 210 215 220  
 Ile Pro Gly Gln Ser Leu Leu Ser Phe Pro Ser Ile Ile His Arg Ala  
 225 230 235 240  
 Phe Leu Arg Pro Ser Phe Asp Lys Ala Arg Val Asp Thr Ile Ile His  
 245 250 255  
 Lys Asn Gln Tyr Lys Val Ile Ser Leu Pro Cys Phe Ile Ile Ser Ile  
 260 265 270  
 Ile Lys Lys Leu Ser Ser Gly Ala Ile Gln Pro Gly Ile Ile Lys Ser  
 275 280 285  
 Arg Ser Tyr Arg Glu Thr Lys Ser Glu Tyr Leu Ala Ser Ile Ala Arg  
 290 295 300  
 His Trp Phe Phe Thr Arg Ser Met His Lys Thr Ile Lys Ile Tyr Met  
 305 310 315 320  
 Pro Arg Phe His Pro Gly Leu  
 325

&lt;210&gt; 67

&lt;211&gt; 1251

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 67

actaccatgg aagctgacct gggtgccact ggccacaggc cccgcacaga gcttgatgat 60  
 gaggactcct accccaagg tggctgggac acggtcttcc tgggtggccct gctgctcctt 120  
 gggctgccag ccaatgggtt gatggcgtgg ctggccggct cccaggcccg gcatggagct 180  
 ggcacgcgtc tggcgtgct cctgctcagc ctggccctct ctgacttctt gttcctggca 240  
 gcagcggcct tccagatcct agagatccgg catgggggac actggccgct ggggacagct 300  
 gcctgccgct tctactactt cctatggggc gtgtcctact cctccggcct cttcctgctg 360  
 gccgccctca gcctcgaccg ctgcctgctg gcgctgtgcc cacactggta ccctgggcac 420

## 00431PHRM293.ST25.txt

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cgcccagttcc gcctgcccct ctgggtctgc gccggtgtct ggggtgctggc cacactcttc 480
agcgtgccct ggctggtctt ccccgaggct gccgtctggt ggtacgacct ggtcatctgc 540
ctggacttct gggacagcga ggagctgtcg ctgaggatgc tggaggtcct ggggggcttc 600
ctgcctttcc tctgtctgct cgtctgccac gtgtcaccc aggccacagc ctgtcgacc 660
tgccaccgcc aacagcagcc cgcagcctgc cggggcttcg cccgtgtggc caggaccatt 720
ctgtcagcct atgtggtcct gaggtgccc taccagctgg cccagctgct ctacctggcc 780
ttctgtggg acgtctactc tggctacctg ctctgggagg ccctggtcta ctccgactac 840
ctgatcctac tcaacagctg cctcagcccc ttctctgcc tcatggccag tgccgacctc 900
cggaccctgc tgcgctccgt gctctcgtcc ttcgggcag ctctctgcga ggagcggccg 960
ggcagcttca cgccactga gccacagacc cagctagatt ctgagggctc aactctgcca 1020
gagccgatgg cagaggccca gtcacagatg gatcctgtgg cccagcctca ggtgaacccc 1080
acactccagc cacgatcgga tcccacagct cagccacagc tgaaccctac ggcccagcca 1140
cagtcggatc ccacagccca gccacagctg aacctcatgg cccagccaca gtcagattct 1200
gtggcccagc cacaggcaga cactaacgtc cagaccctg cacctgctgc c 1251

```

```

<210> 68
<211> 417
<212> PRT
<213> Homo sapiens

```

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<400> 68
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Thr Thr Met Glu Ala Asp Leu Gly Ala Thr Gly His Arg Pro Arg Thr
1          5          10          15
Glu Leu Asp Asp Glu Asp Ser Tyr Pro Gln Gly Gly Trp Asp Thr Val
20        25        30
Phe Leu Val Ala Leu Leu Leu Leu Gly Leu Pro Ala Asn Gly Leu Met
35        40        45
Ala Trp Leu Ala Gly Ser Gln Ala Arg His Gly Ala Gly Thr Arg Leu
50        55        60
Ala Leu Leu Leu Leu Ser Leu Ala Leu Ser Asp Phe Leu Phe Leu Ala
65        70        75        80
Ala Ala Ala Phe Gln Ile Leu Glu Ile Arg His Gly Gly His Trp Pro
85        90        95
Leu Gly Thr Ala Ala Cys Arg Phe Tyr Tyr Phe Leu Trp Gly Val Ser
100       105       110
Tyr Ser Ser Gly Leu Phe Leu Leu Ala Ala Leu Ser Leu Asp Arg Cys
115       120       125
Leu Leu Ala Leu Cys Pro His Trp Tyr Pro Gly His Arg Pro Val Arg
130       135       140
Leu Pro Leu Trp Val Cys Ala Gly Val Trp Val Leu Ala Thr Leu Phe
145       150       155       160

```

Ser Val Pro Trp Leu Val Phe Pro Glu Ala Ala Val Trp Trp Tyr Asp  
 165 170 175  
 Leu Val Ile Cys Leu Asp Phe Trp Asp Ser Glu Glu Leu Ser Leu Arg  
 180 185 190  
 Met Leu Glu Val Leu Gly Gly Phe Leu Pro Phe Leu Leu Leu Val  
 195 200 205  
 Cys His Val Leu Thr Gln Ala Thr Ala Cys Arg Thr Cys His Arg Gln  
 210 215 220  
 Gln Gln Pro Ala Ala Cys Arg Gly Phe Ala Arg Val Ala Arg Thr Ile  
 225 230 235 240  
 Leu Ser Ala Tyr Val Val Leu Arg Leu Pro Tyr Gln Leu Ala Gln Leu  
 245 250 255  
 Leu Tyr Leu Ala Phe Leu Trp Asp Val Tyr Ser Gly Tyr Leu Leu Trp  
 260 265 270  
 Glu Ala Leu Val Tyr Ser Asp Tyr Leu Ile Leu Leu Asn Ser Cys Leu  
 275 280 285  
 Ser Pro Phe Leu Cys Leu Met Ala Ser Ala Asp Leu Arg Thr Leu Leu  
 290 295 300  
 Arg Ser Val Leu Ser Ser Phe Ala Ala Ala Leu Cys Glu Glu Arg Pro  
 305 310 315 320  
 Gly Ser Phe Thr Pro Thr Glu Pro Gln Thr Gln Leu Asp Ser Glu Gly  
 325 330 335  
 Pro Thr Leu Pro Glu Pro Met Ala Glu Ala Gln Ser Gln Met Asp Pro  
 340 345 350  
 Val Ala Gln Pro Gln Val Asn Pro Thr Leu Gln Pro Arg Ser Asp Pro  
 355 360 365  
 Thr Ala Gln Pro Gln Leu Asn Pro Thr Ala Gln Pro Gln Ser Asp Pro  
 370 375 380  
 Thr Ala Gln Pro Gln Leu Asn Leu Met Ala Gln Pro Gln Ser Asp Ser  
 385 390 395 400  
 Val Ala Gln Pro Gln Ala Asp Thr Asn Val Gln Thr Pro Ala Pro Ala  
 405 410 415

Ala

<210> 69  
 <211> 659  
 <212> DNA  
 <213> Homo sapiens

<400> 69  
 tacaggcctg agcatgctgg gctccatcag caccaagcac tgctgtcca tcctgtggcc 60  
 catctagtac cgctgccacc accccacaca cctgtcagca gtcgtgtgtc ctgctctggg 120  
 ccctgtccct gctgcagagc atcctggaat ggatgttctg tggcttcctg tctagtgggtg 180  
 ctgattctgt ttggtgtgaa acatcagatt tcatcacagt cacatggctg atttttttat 240

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gtgtggttct ctgcgggtcc agcccggttc tgctggtcag gatcctttgt ggatcccga 300
agatgccctt gaccaggctg tacatgacca tcctgctcag agtgctggtc ttctctctt 360
gtgacctgcc ctttggcatt cagtgattcc tatttttctg gatccacgtg gatttgtcac 420
gttcgtctag tttccatttt cctgtccact cttaacagca gtgccaaccc cattatttac 480
ttcttcatgg gtccttttag gcagcttcaa aacaggaaga ctctctagct ggttctccag 540
agggctctgc aggacacgcc tgaggtggaa gaaggcagat ggcggtttc tgaggaaacc 600
ctggagctgt catgaagcag attggggcca tgaggaagag cctctgccct gtcagtcag 659

```

```

<210> 70
<211> 213
<212> PRT
<213> Homo sapiens

```

```

<400> 70

```

```

Tyr Arg Pro Glu His Ala Gly Leu His Gln His Gln Ala Leu Pro Val
1          5          10          15
His Pro Val Ala His Leu Val Pro Leu Pro Pro Pro His Thr Pro Val
20          25          30
Ser Ser Arg Val Ser Cys Ser Gly Pro Cys Pro Cys Cys Arg Ala Ser
35          40          45
Trp Asn Gly Cys Ser Val Ala Ser Cys Leu Val Val Leu Ile Leu Phe
50          55          60
Gly Val Lys His Gln Ile Ser Ser Gln Ser His Gly Phe Phe Tyr Val
65          70          75          80
Trp Phe Ser Ala Gly Pro Ala Arg Phe Cys Trp Ser Gly Ser Phe Val
85          90          95
Asp Pro Gly Arg Cys Pro Pro Gly Cys Thr Pro Ser Cys Ser Glu Cys
100         105         110
Trp Ser Ser Ser Ser Val Thr Cys Pro Leu Ala Phe Ser Asp Ser Tyr
115         120         125
Phe Ser Gly Ser Thr Trp Ile Cys His Val Arg Leu Val Ser Ile Phe
130         135         140
Leu Ser Thr Leu Asn Ser Ser Ala Asn Pro Ile Ile Tyr Phe Phe Met
145         150         155         160
Gly Ser Phe Arg Gln Leu Gln Asn Arg Lys Thr Leu Leu Val Leu Gln
165         170         175
Arg Ala Leu Gln Asp Thr Pro Glu Val Glu Glu Gly Arg Trp Arg Leu
180         185         190
Ser Glu Glu Thr Leu Glu Leu Ser Ser Arg Leu Gly Pro Gly Arg Ala
195         200         205
Ser Ala Leu Ser Val
210

```



<210> 71  
 <211> 559  
 <212> DNA  
 <213> Homo sapiens

<400> 71  
 atgccgaagg caggccgcag aagagaagag gaggacggtg aggaggatga gcccagggaa 60  
 gccccggggt gggggccgct gggggcctcg ctccacccgc agcagcagca taaggctggc 120  
 cccacacatg gtgcaacaca gcagagccag cagcaccgct gccaccagcc acagcgtccg 180  
 gcacaagtgg cggctgggct ccccgaagaa ctgggtgcag gcgccgctga gcagcaggtg 240  
 cagcagcagg cagagggccc aggtgagggc gcacacacag gtggtcaggt ggcgtgggcg 300  
 gcggcacgag taccaggtg ggaagagggc ggccaggcac tgctccacgc tgacggccgc 360  
 caggagactc aggccacga ttagcagaa gaagcgcagc gttgccaggc tggctctgcac 420  
 gaagcccggg aagtccagcc ggccttgag caagtcgggg acgatggcca ccatgtggca 480  
 gccaaaggaag atgagatccg cgcaggccac gtccaggagg tagatggcga aagggtttct 540  
 gtagacattg gagctgagc 559

<210> 72  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<400> 72

Leu	Ser	Ser	Asn	Val	Tyr	Arg	Asn	Pro	Phe	Ala	Ile	Tyr	Leu	Leu	Asp
1			5						10					15	
Val	Ala	Cys	Ala	Asp	Leu	Ile	Phe	Leu	Gly	Cys	His	Met	Val	Ala	Ile
			20					25					30		
Val	Pro	Asp	Leu	Leu	Gln	Gly	Arg	Leu	Asp	Phe	Pro	Gly	Phe	Val	Gln
			35				40					45			
Thr	Ser	Leu	Ala	Thr	Leu	Arg	Phe	Phe	Cys	Tyr	Ile	Val	Gly	Leu	Ser
			50			55					60				
Leu	Leu	Ala	Ala	Val	Ser	Val	Glu	Gln	Cys	Leu	Ala	Ala	Leu	Phe	Pro
65					70				75					80	
Ala	Trp	Tyr	Ser	Cys	Arg	Arg	Pro	Arg	His	Leu	Thr	Thr	Cys	Val	Cys
				85					90					95	
Ala	Leu	Thr	Trp	Ala	Leu	Cys	Leu	Leu	His	Leu	Thr	Thr	Cys	Val	
			100				105					110			
Cys	Ala	Leu	Thr	Trp	Ala	Leu	Cys	Leu	Leu	His	Leu	Leu	Leu	Ser	
			115				120				125				
Gly	Ala	Cys	Thr	Leu	Leu	Leu	Ser	Gly	Ala	Cys	Thr	Gln	Phe	Phe	Gly
			130				135				140				
Glu	Pro	Ser	Arg	His	Leu	Cys	Arg	Thr	Leu	Trp	Leu	Val	Ala	Ala	Val
145					150				155					160	
Leu	Leu	Ala	Leu	Leu	Cys	Cys	Thr	Met	Cys	Gly	Ala	Ser	Leu	Met	Leu

165

170

175

Leu Leu Arg Val Glu Arg Gly Pro Gln Arg Pro Pro Pro Arg Gly Phe  
 180 185 190

Pro Gly Leu Ile Leu Leu Thr Val Leu Leu Phe Ser Ser Ala Ala Cys  
 195 200 205

Leu Arg His  
 210

<210> 73  
 <211> 1008  
 <212> DNA  
 <213> Homo sapiens

<400> 73  
 atggaatcat ctttctcatt tggagtgate cttgctgtcc tggcctccct catcattgct 60  
 actaacacac tagtggtgtt ggctgtgtct ctgttgatcc acaagaatga tgggtgtcagt 120  
 ctctgcttca ccttgaatct ggctgtggct gacaccttga ttggtgtggc catctctggc 180  
 ctactcacag accagctctc cagcccttct cgcccccacac agaagaccct gtgcagcctg 240  
 cggatggcat ttgtcacttc ctccgcagct gcctctgtcc tcacgggtcat gctgatcacc 300  
 tttgacaggt accttgccat caagcagccc ttccgctact tgaagatcat gagtgggttc 360  
 gtggccgggg cctgcattgc cgggctgtgg ttagtgtctt acctcattgg ctctctccca 420  
 ctcggaatcc ccatgttcca gcagactgcc tacaaggggc agtgcagctt ctttgctgta 480  
 tttcaccctc acttcgtgct gaccctctcc tgcgttggct tcttcccagc catgctcctc 540  
 tttgtcttct tctactgga catgctcaag attgcctcca tgcacagcca gcagattcga 600  
 aagatggaac atgcaggagc catggctgga ggttatcgat cccacaggac tcccagcgac 660  
 ttcaaagctc tccgtactgt gtctgttctc attgggagct ttgctctatc ctggaccccc 720  
 ttcttatca ctggcattgt gcagggtggc tgccaggagt gtcacctcta cctagtgtgtg 780  
 gaacggtacc tgtggtgtgt cggcgtgggc aactccctgc tcaaccact catctatgcc 840  
 tattggcaga aggaggtgct actgcagctc taccacatgg ccctaggagt gaagaaggtg 900  
 ctcacctcat tctcctctt tctctcggcc aggaattgtg gccagagag gccagggaa 960  
 agttcctgtc acatcgtcac tatctccagc tcagagtttg atggctaa 1008

<210> 74  
 <211> 335  
 <212> PRT  
 <213> Homo sapiens

<400> 74

Met Glu Ser Ser Phe Ser Phe Gly Val Ile Leu Ala Val Leu Ala Ser  
 1 5 10 15

Leu Ile Ile Ala Thr Asn Thr Leu Val Ala Val Ala Val Leu Leu Leu  
 20 25 30

## 00431PHRM293.ST25.txt

Ile His Lys Asn Asp Gly Val Ser Leu Cys Phe Thr Leu Asn Leu Ala  
 35 40 45  
 Val Ala Asp Thr Leu Ile Gly Val Ala Ile Ser Gly Leu Leu Thr Asp  
 50 55 60  
 Gln Leu Ser Ser Pro Ser Arg Pro Thr Gln Lys Thr Leu Cys Ser Leu  
 65 70 75 80  
 Arg Met Ala Phe Val Thr Ser Ser Ala Ala Ala Ser Val Leu Thr Val  
 85 90 95  
 Met Leu Ile Thr Phe Asp Arg Tyr Leu Ala Ile Lys Gln Pro Phe Arg  
 100 105 110  
 Tyr Leu Lys Ile Met Ser Gly Phe Val Ala Gly Ala Cys Ile Ala Gly  
 115 120 125  
 Leu Trp Leu Val Ser Tyr Leu Ile Gly Phe Leu Pro Leu Gly Ile Pro  
 130 135 140  
 Met Phe Gln Gln Thr Ala Tyr Lys Gly Gln Cys Ser Phe Phe Ala Val  
 145 150 155 160  
 Phe His Pro His Phe Val Leu Thr Leu Ser Cys Val Gly Phe Phe Pro  
 165 170 175  
 Ala Met Leu Leu Phe Val Phe Phe Tyr Cys Asp Met Leu Lys Ile Ala  
 180 185 190  
 Ser Met His Ser Gln Gln Ile Arg Lys Met Glu His Ala Gly Ala Met  
 195 200 205  
 Ala Gly Gly Tyr Arg Ser Pro Arg Thr Pro Ser Asp Phe Lys Ala Leu  
 210 215 220  
 Arg Thr Val Ser Val Leu Ile Gly Ser Phe Ala Leu Ser Trp Thr Pro  
 225 230 235 240  
 Phe Leu Ile Thr Gly Ile Val Gln Val Ala Cys Gln Glu Cys His Leu  
 245 250 255  
 Tyr Leu Val Leu Glu Arg Tyr Leu Trp Leu Leu Gly Val Gly Asn Ser  
 260 265 270  
 Leu Leu Asn Pro Leu Ile Tyr Ala Tyr Trp Gln Lys Glu Val Arg Leu  
 275 280 285  
 Gln Leu Tyr His Met Ala Leu Gly Val Lys Lys Val Leu Thr Ser Phe  
 290 295 300  
 Leu Leu Phe Leu Ser Ala Arg Asn Cys Gly Pro Glu Arg Pro Arg Glu  
 305 310 315 320  
 Ser Ser Cys His Ile Val Thr Ile Ser Ser Ser Glu Phe Asp Gly  
 325 330 335

&lt;210&gt; 75

&lt;211&gt; 2137

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 75

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60

## 00431PHRM293.ST25.txt

ggcttgcaag ctggtggctg gcccccgag tccccgggctc tgaggcacgg cgcgcgactt	120
aagcgttgca tcctgttacc tggagaccct ctgagctctc acctgctact tctgccgctg	180
cttctgcaca gagccccggc gaggaccct ccaggatgca ggtcccgaac agcaccggcc	240
cggacaacgc gacgctgcag atgctgcgga acccgcgat cgcgggtggc ctgcccgagg	300
tgtactcgct ggtggcgcg gtcagcatcc cgggcaacct cttctctctg tgggtgctgt	360
gccggcgcat ggggcccaga tccccgctcg tcatcttcat gatcaacctg agcgtcacgg	420
acctgatgct ggccagcgtg ttgcctttcc aaatctacta ccattgcaac cgccaccact	480
gggtattcgg ggtgctgctt tgcaacgtgg tgaccgtggc cttttacgca aacatgtatt	540
ccagcatcct caccatgacc tgtatcagcg tggagcgctt cctgggggtc ctgtaccgac	600
tcagctccaa gcgctggcgc cgcgctcggt acgcggtggc cgcgtgtgca gggacctggc	660
tgctgctcct gaccgcctg tccccgctgg cgcgcaccga tctcacctac ccggtgcacg	720
ccctgggcat catcacctgc ttcgacgtcc tcaagtggac gatgctcccc agcgtggcca	780
tgtgggccgt gttcctcttc accatcttca tcctgctgtt cctcatcccg ttcgtgatca	840
ccgtggcttg ttacacggcc accatcctca agctgttgcg cacggaggag gcgcacggcc	900
gggagcagcg gaggcgcgcg gtgggcctgg ccgcggtggc cttgctggcc tttgtcacct	960
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ggtagagaaa caagcaaagc ccagcagcgc acagggtgct tggtatcctg cagagggtgc	1560
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tttttagtag agctgggctg tcacccccga gtccttaga cactcctcac acctgtccat	1680
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tcgtccctta gttgtggttc tggccttctc cattctctc caggggttct ggtctccgta	1980
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<210> 76  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 76

Met	Gln	Val	Pro	Asn	Ser	Thr	Gly	Pro	Asp	Asn	Ala	Thr	Leu	Gln	Met	1	5	10	15
Leu	Arg	Asn	Pro	Ala	Ile	Ala	Val	Ala	Leu	Pro	Val	Val	Tyr	Ser	Leu	20	25	30	
Val	Ala	Ala	Val	Ser	Ile	Pro	Gly	Asn	Leu	Phe	Ser	Leu	Trp	Val	Leu	35	40	45	
Cys	Arg	Arg	Met	Gly	Pro	Arg	Ser	Pro	Ser	Val	Ile	Phe	Met	Ile	Asn	50	55	60	
Leu	Ser	Val	Thr	Asp	Leu	Met	Leu	Ala	Ser	Val	Leu	Pro	Phe	Gln	Ile	65	70	75	80
Tyr	Tyr	His	Cys	Asn	Arg	His	His	Trp	Val	Phe	Gly	Val	Leu	Leu	Cys	85	90	95	
Asn	Val	Val	Thr	Val	Ala	Phe	Tyr	Ala	Asn	Met	Tyr	Ser	Ser	Ile	Leu	100	105	110	
Thr	Met	Thr	Cys	Ile	Ser	Val	Glu	Arg	Phe	Leu	Gly	Val	Leu	Tyr	Pro	115	120	125	
Leu	Ser	Ser	Lys	Arg	Trp	Arg	Arg	Arg	Arg	Tyr	Ala	Val	Ala	Ala	Cys	130	135	140	
Ala	Gly	Thr	Trp	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Ser	Pro	Leu	Ala	Arg	145	150	155	160
Thr	Asp	Leu	Thr	Tyr	Pro	Val	His	Ala	Leu	Gly	Ile	Ile	Thr	Cys	Phe	165	170	175	
Asp	Val	Leu	Lys	Trp	Thr	Met	Leu	Pro	Ser	Val	Ala	Met	Trp	Ala	Val	180	185	190	
Phe	Leu	Phe	Thr	Ile	Phe	Ile	Leu	Leu	Phe	Leu	Ile	Pro	Phe	Val	Ile	195	200	205	
Thr	Val	Ala	Cys	Tyr	Thr	Ala	Thr	Ile	Leu	Lys	Leu	Leu	Arg	Thr	Glu	210	215	220	
Glu	Ala	His	Gly	Arg	Glu	Gln	Arg	Arg	Arg	Ala	Val	Gly	Leu	Ala	Ala	225	230	235	240
Val	Val	Leu	Leu	Ala	Phe	Val	Thr	Cys	Phe	Ala	Pro	Asn	Asn	Phe	Val	245	250	255	
Leu	Leu	Ala	His	Ile	Val	Ser	Arg	Leu	Phe	Tyr	Gly	Lys	Ser	Tyr	Tyr	260	265	270	
His	Val	Tyr	Lys	Leu	Thr	Leu	Cys	Leu	Ser	Cys	Leu	Asn	Asn	Cys	Leu				

275

280

285

Asp Pro Phe Val Tyr Tyr Phe Ala Ser Arg Glu Phe Gln Leu Arg Leu  
 290 295 300

Arg Glu Tyr Leu Gly Cys Arg Arg Val Pro Arg Asp Thr Leu Asp Thr  
 305 310 315 320

Arg Arg Glu Ser Leu Phe Ser Ala Arg Thr Thr Ser Val Arg Ser Glu  
 325 330 335

Ala Gly Ala His Pro Glu Gly Met Glu Gly Ala Thr Arg Pro Gly Leu  
 340 345 350

Gln Arg Gln Glu Ser Val Phe  
 355

&lt;210&gt; 77

&lt;211&gt; 1197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 77

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 gtggtgtgcc tggcggtgtg cgcttcatc gtgctagaga atctagccgt gttgttggtg 180  
 ctcggaagcc acccgcgctt ccacgctccc atgttctcgc tcctgggcag cctcacgttg 240  
 tcggatctgc tggcaggcgc cgcctacgcc gccaacatcc tactgtcggg gccgctcacg 300  
 ctgaaactgt cccccgcgct ctggttcgca cgggagggag gcgtcttcgt ggcaactcact 360  
 gcgtccgtgc tgagcctcct ggccatcgcg ctggagcgca gcctcaccat ggcgcgagcg 420  
 gggcccgcg cgcgtctcag tcgggggcgc acgctggcga tggcagccgc ggccctggggc 480  
 gtgtcgctgc tcctcgggct cctgccagcg ctgggctgga attgcctggg tcgcctggac 540  
 gcttgctcca ctgtcttgcc gctctacgcc aaggcctacg tgctcttctg cgtgctcgcc 600  
 ttctgtggca tcctggccgc tatctgtgca ctctacgcgc gcactactg ccaggtacgc 660  
 gccaacgcgc ggcgctgcc ggacggccc gggactgcgg ggaccacctc gaccggggcg 720  
 cgtcgcaagc cgcgctcgct ggcttgcgtg cgcacgctca gcgtggtgct cctggccttt 780  
 gtggcatgtt ggggccccct ctctctgctg ctgttgctcg acgtggcgtg cccggcgcg 840  
 acctgtcctg tactcctgca ggccgatccc ttctggggac tggccatggc caactcactt 900  
 ctgaaccca tcatctacac gctcaccaac cgcgacctgc gccacgcgct cctgcgcctg 960  
 gtctgctgcg gacgccactc ctgcggcaga gacccgagtg gctcccagca gtcggcgagc 1020  
 gcggctgagg ctccggggg cctgcgcgcg tgcccgccc cgggccttga tgggagcttc 1080  
 agcggctcgg agcgctcatc gcccagcgc gacgggctgg acaccagcgg ctccacagcg 1140  
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&lt;210&gt; 78

<211> 398  
 <212> PRT  
 <213> Homo sapiens

<400> 78

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Met Glu Ser Gly Leu Leu Arg Pro Ala Pro Val Ser Glu Val Ile Val
1      5      10      15
Leu His Tyr Asn Tyr Thr Gly Lys Leu Arg Gly Ala Arg Tyr Gln Pro
20     25     30
Gly Ala Gly Leu Arg Ala Asp Ala Val Val Cys Leu Ala Val Cys Ala
35     40     45
Phe Ile Val Leu Glu Asn Leu Ala Val Leu Leu Val Leu Gly Arg His
50     55     60
Pro Arg Phe His Ala Pro Met Phe Leu Leu Leu Gly Ser Leu Thr Leu
65     70     75     80
Ser Asp Leu Leu Ala Gly Ala Ala Tyr Ala Ala Asn Ile Leu Leu Ser
85     90     95
Gly Pro Leu Thr Leu Lys Leu Ser Pro Ala Leu Trp Phe Ala Arg Glu
100    105    110
Gly Gly Val Phe Val Ala Leu Thr Ala Ser Val Leu Ser Leu Leu Ala
115    120    125
Ile Ala Leu Glu Arg Ser Leu Thr Met Ala Arg Arg Gly Pro Ala Pro
130    135    140
Val Ser Ser Arg Gly Arg Thr Leu Ala Met Ala Ala Ala Trp Gly
145    150    155    160
Val Ser Leu Leu Leu Gly Leu Leu Pro Ala Leu Gly Trp Asn Cys Leu
165    170    175
Gly Arg Leu Asp Ala Cys Ser Thr Val Leu Pro Leu Tyr Ala Lys Ala
180    185    190
Tyr Val Leu Phe Cys Val Leu Ala Phe Val Gly Ile Leu Ala Ala Ile
195    200    205
Cys Ala Leu Tyr Ala Arg Ile Tyr Cys Gln Val Arg Ala Asn Ala Arg
210    215    220
Arg Leu Pro Ala Arg Pro Gly Thr Ala Gly Thr Thr Ser Thr Arg Ala
225    230    235    240
Arg Arg Lys Pro Arg Ser Leu Ala Leu Leu Arg Thr Leu Ser Val Val
245    250    255
Leu Leu Ala Phe Val Ala Cys Trp Gly Pro Leu Phe Leu Leu Leu
260    265    270
Leu Asp Val Ala Cys Pro Ala Arg Thr Cys Pro Val Leu Leu Gln Ala
275    280    285
Asp Pro Phe Leu Gly Leu Ala Met Ala Asn Ser Leu Leu Asn Pro Ile
290    295    300
Ile Tyr Thr Leu Thr Asn Arg Asp Leu Arg His Ala Leu Leu Arg Leu
305    310    315    320

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## 00431PHRM293.ST25.txt

Val Cys Cys Gly Arg His Ser Cys Gly Arg Asp Pro Ser Gly Ser Gln  
                   325                  330                  335

Gln Ser Ala Ser Ala Ala Glu Ala Ser Gly Gly Leu Arg Arg Cys Leu  
                   340                  345                  350

Pro Pro Gly Leu Asp Gly Ser Phe Ser Gly Ser Glu Arg Ser Ser Pro  
                   355                  360                  365

Gln Arg Asp Gly Leu Asp Thr Ser Gly Ser Thr Gly Ser Pro Gly Ala  
                   370                  375                  380

Pro Thr Ala Ala Arg Thr Leu Val Ser Glu Pro Ala Ala Asp  
                   385                  390                  395

<210> 79  
 <211> 1041  
 <212> DNA  
 <213> Homo sapiens

<400> 79  
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 tgcttcacaca tgaagacctg gaagcccagc actgtttacc ttttcaattt ggccgtggct 180  
 gatttcctcc ttatgatctg cctgcctttt cggacagact attacctcag acgtagacac 240  
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 caccacgcgg tgaacactat ctccaccggt gtggcggctg gcatcgctctg caccctgtgg 420  
 gccctgggtca tcctgggaac agtgtatctt ttgctggaga accatctctg cgtgcaagag 480  
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 tggagcctga ggcgaggca gcagctggcc agacaggctc ggatgaagaa ggcgaccgg 660  
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 ctctatttcc tctggacggt gccctcgagt gcctcgatc cctctgtcca tggggccctg 780  
 cacataaccc tcagcttcac ctacatgaac agcatgctgg atcccctggt gtattatttt 840  
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 cagccaggac actcaaaaac acaaaggccg gaagagatgc caatttcgaa cctcggtcgc 960  
 aggagttgca tcagtgtggc aaatagtttc caaagccagt ctgatgggca atgggatccc 1020  
 cacattgttg agtggcactg a 1041

<210> 80  
 <211> 346  
 <212> PRT  
 <213> Homo sapiens

<400> 80



## 00431PHRM293.ST25.txt

Met Tyr Asn Gly Ser Cys Cys Arg Ile Glu Gly Asp Thr Ile Ser Gln  
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 Val Met Pro Pro Leu Leu Ile Val Ala Phe Val Leu Gly Ala Leu Gly  
 20 25 30  
 Asn Gly Val Ala Leu Cys Gly Phe Cys Phe His Met Lys Thr Trp Lys  
 35 40 45  
 Pro Ser Thr Val Tyr Leu Phe Asn Leu Ala Val Ala Asp Phe Leu Leu  
 50 55 60  
 Met Ile Cys Leu Pro Phe Arg Thr Asp Tyr Tyr Leu Arg Arg Arg His  
 65 70 75 80  
 Trp Ala Phe Gly Asp Ile Pro Cys Arg Val Gly Leu Phe Thr Leu Ala  
 85 90 95  
 Met Asn Arg Ala Gly Ser Ile Val Phe Leu Thr Val Val Ala Ala Asp  
 100 105 110  
 Arg Tyr Phe Lys Val Val His Pro His His Ala Val Asn Thr Ile Ser  
 115 120 125  
 Thr Arg Val Ala Ala Gly Ile Val Cys Thr Leu Trp Ala Leu Val Ile  
 130 135 140  
 Leu Gly Thr Val Tyr Leu Leu Leu Glu Asn His Leu Cys Val Gln Glu  
 145 150 155 160  
 Thr Ala Val Ser Cys Glu Ser Phe Ile Met Glu Ser Ala Asn Gly Trp  
 165 170 175  
 His Asp Ile Met Phe Gln Leu Glu Phe Phe Met Pro Leu Gly Ile Ile  
 180 185 190  
 Leu Phe Cys Ser Phe Lys Ile Val Trp Ser Leu Arg Arg Arg Gln Gln  
 195 200 205  
 Leu Ala Arg Gln Ala Arg Met Lys Lys Ala Thr Arg Phe Ile Met Val  
 210 215 220  
 Val Ala Ile Val Phe Ile Thr Cys Tyr Leu Pro Ser Val Ser Ala Arg  
 225 230 235 240  
 Leu Tyr Phe Leu Trp Thr Val Pro Ser Ser Ala Cys Asp Pro Ser Val  
 245 250 255  
 His Gly Ala Leu His Ile Thr Leu Ser Phe Thr Tyr Met Asn Ser Met  
 260 265 270  
 Leu Asp Pro Leu Val Tyr Tyr Phe Ser Ser Pro Ser Phe Pro Lys Phe  
 275 280 285  
 Tyr Asn Lys Leu Lys Ile Cys Ser Leu Lys Pro Lys Gln Pro Gly His  
 290 295 300  
 Ser Lys Thr Gln Arg Pro Glu Glu Met Pro Ile Ser Asn Leu Gly Arg  
 305 310 315 320  
 Arg Ser Cys Ile Ser Val Ala Asn Ser Phe Gln Ser Gln Ser Asp Gly  
 325 330 335  
 Gln Trp Asp Pro His Ile Val Glu Trp His

340

345

<210> 81  
 <211> 2525  
 <212> DNA  
 <213> Homo sapiens

<400> 81  
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 gcgatcctat agtgacaccc cacttaatca gcctctactt catagtgcct attggcgggc 120  
 tgggtgggtgt catttccatt cttttcctcc tggtgaaaat gaacaccggt tcagtgacca 180  
 ccatggcggt cattaacttg gtggtggtcc acagcgtttt tctgctgaca gtgccatttc 240  
 gcttgaccta cctcatcaag aagacttggg tgtttgggct gcccttctgc aaatttgtga 300  
 gtgccatgct gcacatccac atgtacctca cgttcctatt ctatgtggtg atcctgggtca 360  
 ccagatacct catcttcttc aagtgc aaag acaaagtggg attctacaga aaactgcatg 420  
 ctgtggctgc cagtgcctggc atgtggacgc tgggtgattgt cattgtggta cccctggttg 480  
 tctcccggta tggaatccat gaggaataca atgaggagca ctgttttaaa tttcacaaaag 540  
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 gccactcttt actatccac caggagttct gggtcagct gaaaaaccta ttttttatag 720  
 gggtcacctc tgtttgtttc cttccctacc agttcttttag gatctattac ttgaatgttg 780  
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 taacagcaat tagctgctat gatttgcttc tctttgtctt tgggggaagc cattggttta 900  
 agcaaaagat aattggctta tgggaattgtg ttttgtgccg ttagccacaa actacagtat 960  
 tcatatttgc ttcctttata ttgggaataa aaatgggtat aggggaggta agaatggtat 1020  
 ttcattactt gatcaaaacc atgccttgat gtacccaaaa caaaaggact ataaaatgca 1080  
 agagccctca ttgtagtcct tatgggatcc ctcccatctc tgagtgatgg ccgtacaaaag 1140  
 accagtgttg ttgaatccac ctggagttgc aatattacat tattttccag tacagaatgt 1200  
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 cttttcatcc cacttcacct taggtaagta aattctggcc accaccagc tccaaagaca 1380  
 caaactctcc ttcgctaacc aggttagatg tccattcat ctcagccct gataaaaact 1440  
 gataagggga gagaatagtt aaaaattttt ctagggtatc ataactctgg taggaagtca 1500  
 tctgtctaga aatcaagaga aaaagaacgt gtggcctcct gttataacaa gggtttctag 1560  
 atttgtcctg tgaaaggctg ttaaggact tggggatcaa cttcctcaat taccaccaat 1620  
 tgcactgttg ctccaaaaat catttaaaag cttactggac atatctacat aatggtgaaa 1680  
 ctgtaattta gagactatcc ctgactaatg tgctggtagg cattaaaatg agttcccaag 1740

## 00431PHRM293.ST25.txt

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ggaagtgatt aaaatttttt tctcttctgt tttttgagag aatttctaga tgtcctgggc 1800
cacagttaat taagattttt agggggggaca gaaagttata ctgaaatctt tagagctccc 1860
ttccgccgtt aaaattatat atatatatat ttaaattata ccttaagttc tggggtacat 1920
gtgcagaatg tgcaggtttg ttacataggt atacacgtgc catggtgggt tgcggcacct 1980
gtcaacccat ctacattagg tatttctcct aatgctctcc ctcccctagc cccccacccc 2040
tggacaggcc ccattgtgtg atgttcccct ccctgtgtcc atgtgttttc attgttcaac 2100
tcccacttct aagtgagaac atgcggtgtt tggttttctg ttcctgtgtt agtttgctga 2160
gaatgatggt ttccagggtt aaattatata tttttaaata aatgaaaact gtgtttttta 2220
aagaggactt ttgagaagta tatagaaaaa ccattaattt agactctgtg agattaggtt 2280
gcatgaagaa ggttttctga atatttgaag agtggataaa taaatgtccc ccaaagcaat 2340
aaaatcataa tcctttaaaa tataggaaaa ataactaatg ggaactaggc ttaatactcg 2400
ggatgaaata atctgtacaa caaactccca tgacacatgt ttacctatgt aacaaacctg 2460
cacatgtacc cctgaactta aaataaaatt taaagtataa taataaaata atatggattt 2520
tctttt 2525

```

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<210> 82
<211> 312
<212> PRT
<213> Homo sapiens

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<400> 82
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1          5          10          15
Ser Ser Cys Asp Pro Ile Val Thr Pro His Leu Ile Ser Leu Tyr Phe
          20          25          30
Ile Val Leu Ile Gly Gly Leu Val Gly Val Ile Ser Ile Leu Phe Leu
          35          40          45
Leu Val Lys Met Asn Thr Arg Ser Val Thr Thr Met Ala Val Ile Asn
          50          55          60
Leu Val Val Val His Ser Val Phe Leu Leu Thr Val Pro Phe Arg Leu
65          70          75          80
Thr Tyr Leu Ile Lys Lys Thr Trp Met Phe Gly Leu Pro Phe Cys Lys
          85          90          95
Phe Val Ser Ala Met Leu His Ile His Met Tyr Leu Thr Phe Leu Phe
          100          105          110
Tyr Val Val Ile Leu Val Thr Arg Tyr Leu Ile Phe Phe Lys Cys Lys
          115          120          125
Asp Lys Val Glu Phe Tyr Arg Lys Leu His Ala Val Ala Ala Ser Ala
          130          135          140
Gly Met Trp Thr Leu Val Ile Val Ile Val Val Pro Leu Val Val Ser

```

00431PHRM293.ST25.txt

145                      150                      155                      160  
Arg Tyr Gly Ile His Glu Glu Tyr Asn Glu Glu His Cys Phe Lys Phe  
                                165                      170                      175

His Lys Glu Leu Ala Tyr Thr Tyr Val Lys Ile Ile Asn Tyr Met Ile  
180 185 190

Val Ile Phe Val Ile Ala Val Ala Val Ile Leu Leu Val Phe Gln Val  
195 200 205

Phe Ile Ile Met Leu Met Val Gln Lys Leu Arg His Ser Leu Leu Ser  
210 215 220

His Gln Glu Phe Trp Ala Gln Leu Lys Asn Leu Phe Phe Ile Gly Val  
225 230 235 240

Ile Leu Val Cys Phe Leu Pro Tyr Gln Phe Phe Arg Ile Tyr Tyr Leu  
245 250 255

Asn Val Val Thr His Ser Asn Ala Cys Asn Ser Lys Val Ala Phe Tyr  
260 265 270

Asn Glu Ile Phe Leu Ser Val Thr Ala Ile Ser Cys Tyr Asp Leu Leu  
275 280 285

Leu Phe Val Phe Gly Gly Ser His Trp Phe Lys Gln Lys Ile Ile Gly  
290 295 300

Leu Trp Asn Cys Val Leu Cys Arg  
305 310

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<210> 83
<211> 1125
<212> DNA
<213> Homo sapiens
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<400>	83						
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gcctctctgg	cctgcgctga	tttcttggtg	ggtgtgactg	tgatgccctt	cagcatggtc		360
aggacggtgg	agagctgctg	gtattttggg	aggagttttt	gtactttcca	cacctgctgt		420
gatgtggcat	tttgttactc	ttctctcttt	cacttgtgct	tcatctccat	cgacaggtag		480
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gtctatgacg	atgggctgga	ggaattatct	gatgccctaa	actgtatagg	aggttgtcag		660
accgttgtaa	atcaaaactg	ggtgttgaca	gattttctat	ccttctttat	acctaccttt		720
attatgataa	ttctgtatgg	taacatattt	cttgtggcta	gacgacaggc	gaaaaagata		780
gaaaatactg	gtagcaagac	agaatcatcc	tcagagagtt	acaaagccag	agtggccagg		840

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agagagagaa aagcagctaa aaccctgggg gtcacagtgg tagcatttat gatttcattg 900
ttaccatata gcattgattc attaattgat gcctttatgg gctttataac ccctgcctgt 960
atttatgaga tttgctgttg gtgtgcttat tataactcag ccatgaatcc tttgatttat 1020
gctttatttt acccatgggt taggaaagca ataaaagtta ttgtaactgg tcagggttta 1080
aagaacagtt cagcaacat gaatttggtt tctgaacata tataa 1125

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<210> 84
<211> 345
<212> PRT
<213> Homo sapiens

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<400> 84
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Met Ser Ser Asn Ser Ser Leu Leu Val Ala Val Gln Leu Cys Tyr Ala
1      5      10      15
Asn Val Asn Gly Ser Cys Val Lys Ile Pro Phe Ser Pro Gly Ser Arg
20     25     30
Val Ile Leu Tyr Ile Val Phe Gly Phe Gly Ala Val Leu Ala Val Phe
35     40     45
Gly Asn Leu Leu Val Met Ile Ser Ile Leu His Phe Lys Gln Leu His
50     55     60
Ser Pro Thr Asn Phe Leu Val Ala Ser Leu Ala Cys Ala Asp Phe Leu
65     70     75     80
Val Gly Val Thr Val Met Pro Phe Ser Met Val Arg Thr Val Glu Ser
85     90     95
Cys Trp Tyr Phe Gly Arg Ser Phe Cys Thr Phe His Thr Cys Cys Asp
100    105    110
Val Ala Phe Cys Tyr Ser Ser Leu Phe His Leu Cys Phe Ile Ser Ile
115    120    125
Asp Arg Tyr Ile Ala Val Thr Asp Pro Leu Val Tyr Pro Thr Lys Phe
130    135    140
Thr Val Ser Val Ser Gly Ile Cys Ile Ser Val Ser Trp Ile Leu Pro
145    150    155    160
Leu Met Tyr Ser Gly Ala Val Phe Tyr Thr Gly Val Tyr Asp Asp Gly
165    170    175
Leu Glu Glu Leu Ser Asp Ala Leu Asn Cys Ile Gly Gly Cys Gln Thr
180    185    190
Val Val Asn Gln Asn Trp Val Leu Thr Asp Phe Leu Ser Phe Phe Ile
195    200    205
Pro Thr Phe Ile Met Ile Ile Leu Tyr Gly Asn Ile Phe Leu Val Ala
210    215    220
Arg Arg Gln Ala Lys Lys Ile Glu Asn Thr Gly Ser Lys Thr Glu Ser
225    230    235    240
Ser Ser Glu Ser Tyr Lys Ala Arg Val Ala Arg Arg Glu Arg Lys Ala

```

245

250

255

Ala Lys Thr Leu Gly Val Thr Val Val Ala Phe Met Ile Ser Trp Leu  
 260 265 270

Pro Tyr Ser Ile Asp Ser Leu Ile Asp Ala Phe Met Gly Phe Ile Thr  
 275 280 285

Pro Ala Cys Ile Tyr Glu Ile Cys Cys Trp Cys Ala Tyr Tyr Asn Ser  
 290 295 300

Ala Met Asn Pro Leu Ile Tyr Ala Leu Phe Tyr Pro Trp Phe Arg Lys  
 305 310 315 320

Ala Ile Lys Val Ile Val Thr Gly Gln Val Leu Lys Asn Ser Ser Ala  
 325 330 335

Thr Met Asn Leu Phe Ser Glu His Ile  
 340 345

<210> 85  
 <211> 1020  
 <212> DNA  
 <213> Homo sapiens

<400> 85  
 accatgaatg agccactaga ctatttagca aatgcttctg atttccccga ttatgcagct 60  
 gcttttgga attgcactga tgaaaacatc ccaactcaaga tgcactacct ccctgttatt 120  
 tatggcatta tcttcctcgt gggatttcca ggcaatgcag tagtgatata cacttacatt 180  
 ttcaaaatga gaccttgga gagcagcacc atcattatgc tgaacctggc ctgcacagat 240  
 ctgctgtatc tgaccagcct ccccttcctg attcactact atgccagtgg cgaaaactgg 300  
 atctttggag atttcatgtg taagtttatc cgcttcagct tccatttcaa cctgtatagc 360  
 agcatcctct tcctcacctg tttcagcatc ttccgctact gtgtgatcat tcaccaatg 420  
 agctgctttt ccattcacia aactcgatgt gcagttgtag cctgtgctgt ggtgtggatc 480  
 atttactgg tagctgtcat tccgatgacc ttcttgatca catcaaccaa caggaccaac 540  
 agatcagcct gtctcgacct caccagtctg gatgaactca atactattaa gtggtacaac 600  
 ctgattttga ctgcaagtac tttctgcctc cccttggtga tagtgacact ttgctatacc 660  
 acgattatcc aactttgac ccatggactg caaactgaca gctgccttaa gcagaaagca 720  
 cgaaggctaa ccattctgct actccttgca ttttacgtat gttttttacc cttccatata 780  
 ttgaggggtca ttcaggatcg aatctcagcc tgctttcaat cagttgttcc attgagaatc 840  
 agatccatga agcttacatc gtttctagac cattatgctg ctctgaacac ctttggtaac 900  
 ctgttactat atgtgggtgg cagcgacaac tttcagcagg ctgtctgctc aacagtgaga 960  
 tgcaaagtaa gcgggaacct tgagcaagca aagaaaatta gttactcaaa caacccttga 1020

<210> 86  
 <211> 336  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 86

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Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe Pro Asp
1      5      10      15
Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro Leu Lys
      20      25      30
Met His Tyr Leu Pro Val Ile Tyr Gly Ile Ile Phe Leu Val Gly Phe
      35      40      45
Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met Arg Pro
      50      55      60
Trp Lys Ser Ser Thr Ile Ile Met Leu Asn Leu Ala Cys Thr Asp Leu
65      70      75      80
Leu Tyr Leu Thr Ser Leu Pro Phe Leu Ile His Tyr Tyr Ala Ser Gly
      85      90      95
Glu Asn Trp Ile Phe Gly Asp Phe Met Cys Lys Phe Ile Arg Phe Ser
      100      105      110
Phe His Phe Asn Leu Tyr Ser Ser Ile Leu Phe Leu Thr Cys Phe Ser
      115      120      125
Ile Phe Arg Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile
      130      135      140
His Lys Thr Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile
145      150      155      160
Ser Leu Val Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn
      165      170      175
Arg Thr Asn Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu
      180      185      190
Asn Thr Ile Lys Trp Tyr Asn Leu Ile Leu Thr Ala Ser Thr Phe Cys
      195      200      205
Leu Pro Leu Val Ile Val Thr Leu Cys Tyr Thr Thr Ile Ile His Thr
      210      215      220
Leu Thr His Gly Leu Gln Thr Asp Ser Cys Leu Lys Gln Lys Ala Arg
225      230      235      240
Arg Leu Thr Ile Leu Leu Leu Leu Ala Phe Tyr Val Cys Phe Leu Pro
      245      250      255
Phe His Ile Leu Arg Val Ile Gln Asp Arg Ile Ser Ala Cys Phe Gln
      260      265      270
Ser Val Val Pro Leu Arg Ile Arg Ser Met Lys Leu Thr Ser Phe Leu
      275      280      285
Asp His Tyr Ala Ala Leu Asn Thr Phe Gly Asn Leu Leu Leu Tyr Val
      290      295      300
Val Val Ser Asp Asn Phe Gln Gln Ala Val Cys Ser Thr Val Arg Cys
305      310      315      320
Lys Val Ser Gly Asn Leu Glu Gln Ala Lys Lys Ile Ser Tyr Ser Asn
      325      330      335

```

<210> 87  
 <211> 1138  
 <212> DNA  
 <213> Homo sapiens

<400> 87  
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 tattcttcaa cagagagtaa taggtaaag ttttagaagt gagaggactc aaattgccaa 120  
 tgatttactc ttttattttt cctcctaggt ttctgggata agtatgtgca aataaaaaat 180  
 aaacatgaga aggaactgta acctgattat ggatttgga aaaagataaa tcaacacaca 240  
 aaggghaaaag taaactgatt gacagccctc aggaatgatg cccttttgcc acaatataat 300  
 taatatttcc tgtgtgaaaa acaactgggc aaatgatgtc cgtgcttccc tgtacagttt 360  
 aatgggtgctc ataattctga ccacactcgt tggcaatctg atagttattg tttctatata 420  
 acacttcaaa caacttcata cccaacaaa ttggctcatt cattccatgg ccactgtgga 480  
 ctttcttctg ggggtgtctg tcatgcctta cagtatgggt agatctgctg agcactgttg 540  
 gtatttttga gaagtcttct gtaaaattca cacaagcacc gacattatgc tgagctcagc 600  
 ctccattttc catttgtctt tcatctccat tgaccgctac tatgctgtgt gtgatccact 660  
 gagatataaa gccaatgata atatcttggg tatttgtgtg atgatcttca ttagttggag 720  
 tgtccctgct gtttttgcatt ttggaatgat ctttctggag ctacttca aaggcgctga 780  
 agagatatat tacaacatg ttcactgcag aggaggttgc tctgtcttct ttagcaaaat 840  
 atctggggta ctgaccttta tgacttcttt ttatatacct ggatctatta tgttatgtgt 900  
 ctattacaga atatatctta tcgctaaaga acaggcaaga ttaattagt atgccaatca 960  
 gaagctocaa attggattgg aaatgaaaaa tggaatttca caaagcaaag aaaggaaagc 1020  
 tgtgaagaca ttggggattg tgatgggagt tttcctaata tgctgggtgcc ctttctttat 1080  
 ctgtacagtc atggaccctt ttcttcaact cattattcca cctactttga atgatgta 1138

<210> 88  
 <211> 296  
 <212> PRT  
 <213> Homo sapiens

<400> 88

Met	Met	Pro	Phe	Cys	His	Asn	Ile	Ile	Asn	Ile	Ser	Cys	Val	Lys	Asn
1				5					10					15	
Asn	Trp	Ser	Asn	Asp	Val	Arg	Ala	Ser	Leu	Tyr	Ser	Leu	Met	Val	Leu
			20					25					30		
Ile	Ile	Leu	Thr	Thr	Leu	Val	Gly	Asn	Leu	Ile	Val	Ile	Val	Ser	Ile
		35					40				45				
Ser	His	Phe	Lys	Gln	Leu	His	Thr	Pro	Thr	Asn	Trp	Leu	Ile	His	Ser
	50					55					60				



## 00431PHRM293.ST25.txt

Met Ala Thr Val Asp Phe Leu Leu Gly Cys Leu Val Met Pro Tyr Ser  
65 70 75 80

Met Val Arg Ser Ala Glu His Cys Trp Tyr Phe Gly Glu Val Phe Cys  
85 90 95

Lys Ile His Thr Ser Thr Asp Ile Met Leu Ser Ser Ala Ser Ile Phe  
100 105 110

His Leu Ser Phe Ile Ser Ile Asp Arg Tyr Tyr Ala Val Cys Asp Pro  
115 120 125

Leu Arg Tyr Lys Ala Lys Met Asn Ile Leu Val Ile Cys Val Met Ile  
130 135 140

Phe Ile Ser Trp Ser Val Pro Ala Val Phe Ala Phe Gly Met Ile Phe  
145 150 155 160

Leu Glu Leu Asn Phe Lys Gly Ala Glu Glu Ile Tyr Tyr Lys His Val  
165 170 175

His Cys Arg Gly Gly Cys Ser Val Phe Phe Ser Lys Ile Ser Gly Val  
180 185 190

Leu Thr Phe Met Thr Ser Phe Tyr Ile Pro Gly Ser Ile Met Leu Cys  
195 200 205

Val Tyr Tyr Arg Ile Tyr Leu Ile Ala Lys Glu Gln Ala Arg Leu Ile  
210 215 220

Ser Asp Ala Asn Gln Lys Leu Gln Ile Gly Leu Glu Met Lys Asn Gly  
225 230 235 240

Ile Ser Gln Ser Lys Glu Arg Lys Ala Val Lys Thr Leu Gly Ile Val  
245 250 255

Met Gly Val Phe Leu Ile Cys Trp Cys Pro Phe Phe Ile Cys Thr Val  
260 265 270

Met Asp Pro Phe Leu His Tyr Ile Ile Pro Pro Thr Leu Asn Asp Ala  
275 280 285

Arg Gly Ser Arg Ala Asn Ser Ala  
290 295

<210> 89

<211> 1023

<212> DNA

<213> Homo sapiens

<400> 89

ggaatgatgc ccttttgcca caatataatt aatatttcct gtgtgaaaaa caactggtca 60

aatgatgtcc gtgcttcct gtacagttta atggtgctca taattctgac cacactcgtt 120

ggcaatctga tagttattgt ttctatatca cacttcaaac aacttcatac cccaacaaat 180

tggctcattc attccatggc cactgtggac tttcttctgg ggtgtctggt catgccttac 240

agtatgggtga gatctgctga gcactgttg ttttttgag aagtcttctg taaaattcac 300

acaagcaccg acattatgct gagctcagcc tccattttcc atttgtcttt catctccatt 360

gaccgctact atgctgtgtg tgatccactg agatataaag ccaagatgaa tatcttggtt 420

## 00431PHRM293.ST25.txt

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atttgtgtga tgatcttcat tagttggagt gtccctgctg tttttgcatt tggaatgatc 480
tttctggagc taaacttcaa aggcgctgaa gagatatatt acaaacatgt tcaactgcaga 540
ggaggttgct ctgtcttctt tagcaaaata tctgggggtac tgacctttat gacttctttt 600
tatataacctg gatctattat gttatgtgtc tattacagaa tatactttat cgctaaagaa 660
caggcaagat taattagtga tgccaatcag aagctccaaa ttggattgga aatgaaaaat 720
ggaatttcac aaagcaaaga aaggaaagct gtgaagacat tggggattgt gatgggagtt 780
ttcctaatat gctgggtgcc tttctttatc tgtacagtca tggacccttt tcttcactac 840
attattccac ctactttgaa tgatgtattg atttggtttg gctacttgaa ctctacattt 900
aatccaatgg tttatgcatt tttctatcct tggtttagaa aagcactgaa gatgatgctg 960
tttggtaaaa ttttccaaaa agattcatcc aggtgtaa attttttgga attgagttca 1020
tag 1023

```

```

<210> 90
<211> 339
<212> PRT
<213> Homo sapiens

```

```
<400> 90
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Met Met Pro Phe Cys His Asn Ile Ile Asn Ile Ser Cys Val Lys Asn
1           5           10           15
Asn Trp Ser Asn Asp Val Arg Ala Ser Leu Tyr Ser Leu Met Val Leu
20          25          30
Ile Ile Leu Thr Thr Leu Val Gly Asn Leu Ile Val Ile Val Ser Ile
35          40          45
Ser His Phe Lys Gln Leu His Thr Pro Thr Asn Trp Leu Ile His Ser
50          55          60
Met Ala Thr Val Asp Phe Leu Leu Gly Cys Leu Val Met Pro Tyr Ser
65          70          75          80
Met Val Arg Ser Ala Glu His Cys Trp Tyr Phe Gly Glu Val Phe Cys
85          90          95
Lys Ile His Thr Ser Thr Asp Ile Met Leu Ser Ser Ala Ser Ile Phe
100         105         110
His Leu Ser Phe Ile Ser Ile Asp Arg Tyr Tyr Ala Val Cys Asp Pro
115         120         125
Leu Arg Tyr Lys Ala Lys Met Asn Ile Leu Val Ile Cys Val Met Ile
130         135         140
Phe Ile Ser Trp Ser Val Pro Ala Val Phe Ala Phe Gly Met Ile Phe
145         150         155         160
Leu Glu Leu Asn Phe Lys Gly Ala Glu Glu Ile Tyr Tyr Lys His Val
165         170         175
His Cys Arg Gly Gly Cys Ser Val Phe Phe Ser Lys Ile Ser Gly Val
180         185         190

```

00431PHRM293.ST25.txt

Leu Thr Phe Met Thr Ser Phe Tyr Ile Pro Gly Ser Ile Met Leu Cys  
 195 200 205

Val Tyr Tyr Arg Ile Tyr Leu Ile Ala Lys Glu Gln Ala Arg Leu Ile  
 210 215 220

Ser Asp Ala Asn Gln Lys Leu Gln Ile Gly Leu Glu Met Lys Asn Gly  
 225 230 235 240

Ile Ser Gln Ser Lys Glu Arg Lys Ala Val Lys Thr Leu Gly Ile Val  
 245 250 255

Met Gly Val Phe Leu Ile Cys Trp Cys Pro Phe Phe Ile Cys Thr Val  
 260 265 270

Met Asp Pro Phe Leu His Tyr Ile Ile Pro Pro Thr Leu Asn Asp Val  
 275 280 285

Leu Ile Trp Phe Gly Tyr Leu Asn Ser Thr Phe Asn Pro Met Val Tyr  
 290 295 300

Ala Phe Phe Tyr Pro Trp Phe Arg Lys Ala Leu Lys Met Met Leu Phe  
 305 310 315 320

Gly Lys Ile Phe Gln Lys Asp Ser Ser Arg Cys Lys Leu Phe Leu Glu  
 325 330 335

Leu Ser Ser

<210> 91  
 <211> 1696  
 <212> DNA  
 <213> Homo sapiens

<400> 91  
 ctgtaaagta gattgtatga ggactccatg aggtcatcca cttcaagtcc ttggcatagg 60  
 ataattactc aaaaggatgat gacaatggcg cagggaggga tggatgacttg cctggagatg 120  
 cacagcaccg tctctcccat actcggatcat tcacaccatc attgattcac caggcaccac 180  
 tccgtgtcca gcaggactct ggggaccca aatggacact accatggaag ctgacctggg 240  
 tgccactggc cacaggcccc gcacagagct tgatgatgag gactcctacc cccaaggatgg 300  
 ctgggacacg gtcttcctgg tggccctgct gtccttggg ctgccagcca atgggttgat 360  
 ggcgtggctg gccggctccc aggcccgga tggagctggc acgcgtctgg cgctgctcct 420  
 gtcagcctg gccctctctg acttcttggt cctggcagca gcggccttcc agatcctaga 480  
 gatccggcat gggggacact ggccgctggg gacagctgcc tgccgcttct actattcct 540  
 atggggcgtg tctactcct ccggcctctt cctgctggcc gccctcagcc tcgaccgctg 600  
 cctgctggcg ctgtgcccac actgggtaccc tgggcaccgc ccagtcgcc tgcccctctg 660  
 ggtctgcgcc ggtgtctggg tgctggccac actcttcagc gtgccctggc tggctctccc 720  
 cgaggtgcc gtctggtggt acgacctggg catctgcctg gacttctggg acagcgagga 780  
 gctgtcgtg aggatgctgg aggtcctggg gggcttctg cctttcctcc tgctgctcgt 840

## 00431PHRM293.ST25.txt

```

ctgccacgtg ctcacccagg ccacagcctg tcgcacctgc caccgccaac agcagcccgc 900
agcctgccgg ggcttcgccc gtgtggccag gaccattctg tcagcctatg tggctctgag 960
gctgccctac cagctggccc agctgtctta cctggccttc ctgtgggacg tctactctgg 1020
ctacctgtc tgggaggccc tggctactc cgactacctg atcctactca acagctgcct 1080
cagccccttc ctctgcctca tggccagtgc cgacctcgg accctgctgc gctccgtgct 1140
ctcgtccttc gcggcagctc tctgcgagga gcggccgggc agcttcacgc ccactgagcc 1200
acagacccag ctagattctg aggttccaac tctgccagag ccgatggcag aggccagtc 1260
acagatggat cctgtggccc agcctcaggt gaaccccaca ctccagccac gatcggatcc 1320
cacagctcag ccacagctga accctacggc ccagccacag tcggatccca cagcccagcc 1380
acagctgaac ctcatggccc agccacagtc agattctgtg gccagccac aggagacac 1440
taacgtccag acccctgcac ctgctgccag ttctgtgccc agtccctgtg atgaagcttc 1500
cccaaccca tcctcgcac ctaccccagg ggccttgag gacccagcca cacctcctgc 1560
ctctgaagga gaaagcccca gcagcaccac gccagaggcg gcccgggag caggcccccac 1620
gtgagggtcc aggaacacgc aggccacca gagcagtga agagcccagg gcagacagag 1680
gaaccagcca gtcaga 1696

```

```

<210> 92
<211> 505
<212> PRT
<213> Homo sapiens

```

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<400> 92
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Leu Ala Trp Arg Cys Thr Ala Pro Ser Leu Pro Tyr Ser Val Ile His
1          5          10          15
Thr Ile Ile Asp Ser Pro Gly Thr Thr Pro Cys Pro Ala Gly Leu Trp
20        25        30
Gly Pro Gln Met Asp Thr Thr Met Glu Ala Asp Leu Gly Ala Thr Gly
35        40        45
His Arg Pro Arg Thr Glu Leu Asp Asp Glu Asp Ser Tyr Pro Gln Gly
50        55        60
Gly Trp Asp Thr Val Phe Leu Val Ala Leu Leu Leu Leu Gly Leu Pro
65        70        75        80
Ala Asn Gly Leu Met Ala Trp Leu Ala Gly Ser Gln Ala Arg His Gly
85        90        95
Ala Gly Thr Arg Leu Ala Leu Leu Leu Ser Leu Ala Leu Ser Asp
100       105       110
Phe Leu Phe Leu Ala Ala Ala Ala Phe Gln Ile Leu Glu Ile Arg His
115       120       125
Gly Gly His Trp Pro Leu Gly Thr Ala Ala Cys Arg Phe Tyr Tyr Phe
130       135       140

```

## 00431PHRM293.ST25.txt

Leu Trp Gly Val Ser Tyr Ser Ser Gly Leu Phe Leu Leu Ala Ala Leu  
 145 150 155 160  
 Ser Leu Asp Arg Cys Leu Leu Ala Leu Cys Pro His Trp Tyr Pro Gly  
 165 170 175  
 His Arg Pro Val Arg Leu Pro Leu Trp Val Cys Ala Gly Val Trp Val  
 180 185 190  
 Leu Ala Thr Leu Phe Ser Val Pro Trp Leu Val Phe Pro Glu Ala Ala  
 195 200 205  
 Val Trp Trp Tyr Asp Leu Val Ile Cys Leu Asp Phe Trp Asp Ser Glu  
 210 215 220  
 Glu Leu Ser Leu Arg Met Leu Glu Val Leu Gly Gly Phe Leu Pro Phe  
 225 230 235 240  
 Leu Leu Leu Leu Val Cys His Val Leu Thr Gln Ala Thr Ala Cys Arg  
 245 250 255  
 Thr Cys His Arg Gln Gln Gln Pro Ala Ala Cys Arg Gly Phe Ala Arg  
 260 265 270  
 Val Ala Arg Thr Ile Leu Ser Ala Tyr Val Val Leu Arg Leu Pro Tyr  
 275 280 285  
 Gln Leu Ala Gln Leu Leu Tyr Leu Ala Phe Leu Trp Asp Val Tyr Ser  
 290 295 300  
 Gly Tyr Leu Leu Trp Glu Ala Leu Val Tyr Ser Asp Tyr Leu Ile Leu  
 305 310 315 320  
 Leu Asn Ser Cys Leu Ser Pro Phe Leu Cys Leu Met Ala Ser Ala Asp  
 325 330 335  
 Leu Arg Thr Leu Leu Arg Ser Val Leu Ser Ser Phe Ala Ala Ala Leu  
 340 345 350  
 Cys Glu Glu Arg Pro Gly Ser Phe Thr Pro Thr Glu Pro Gln Thr Gln  
 355 360 365  
 Leu Asp Ser Glu Gly Pro Thr Leu Pro Glu Pro Met Ala Glu Ala Gln  
 370 375 380  
 Ser Gln Met Asp Pro Val Ala Gln Pro Gln Val Asn Pro Thr Leu Gln  
 385 390 395 400  
 Pro Arg Ser Asp Pro Thr Ala Gln Pro Gln Leu Asn Pro Thr Ala Gln  
 405 410 415  
 Pro Gln Ser Asp Pro Thr Ala Gln Pro Gln Leu Asn Leu Met Ala Gln  
 420 425 430  
 Pro Gln Ser Asp Ser Val Ala Gln Pro Gln Ala Asp Thr Asn Val Gln  
 435 440 445  
 Thr Pro Ala Pro Ala Ala Ser Ser Val Pro Ser Pro Cys Asp Glu Ala  
 450 455 460  
 Ser Pro Thr Pro Ser Ser His Pro Thr Pro Gly Ala Leu Glu Asp Pro  
 465 470 475 480  
 Ala Thr Pro Pro Ala Ser Glu Gly Glu Ser Pro Ser Ser Thr Pro Pro  
 485 490 495

Glu Ala Ala Pro Gly Ala Gly Pro Thr  
 500 505

<210> 93  
 <211> 1413  
 <212> DNA  
 <213> Homo sapiens

<400> 93  
 atggacacta ccatggaagc tgacctgggt gccactggcc acaggccccg cacagagctt 60  
 gatgatgagg actcctaccc ccaagggtggc tgggacacgg tcttcctggt ggccctgctg 120  
 ctctctgggc tgccagccaa tgggttgatg gcgtggctgg ccggctccca ggcccggcat 180  
 ggagctggca cgcgtctggc gctgctcctg ctcagcctgg ccctctctga cttcttgttc 240  
 ctggcagcag cggccttcca gatcctagag atccggcatg ggggacactg gccgctgggg 300  
 acagctgcct gccgcttcta ctacttccta tggggcgtgt cctactctc cggcctcttc 360  
 ctgctggccg ccctcagcct cgaccgctgc ctgctggcgc tgtgcccaca ctggtaccct 420  
 gggcaccgcc cagtccgcct gccctcttg gtctgcgcc gtgtctgggt gctggccaca 480  
 ctcttcagcg tgccctggct ggtcttcccc gaggtgccc tctggtgga cgacctggtc 540  
 atctgcctgg acttctggga cagcgaggag ctgtcgtga ggatgctgga ggtcctgggg 600  
 ggcttcctgc ctttcctcct gctgctcgtc tgccacgtgc tcaccaggc cacagcctgt 660  
 cgcacctgcc accgccaaca gcagcccgca gcctgccggg gcttcgccc tgtggccagg 720  
 accattctgt cagcctatgt ggtcctgagg ctgccctacc agctggcca gctgctctac 780  
 ctggccttcc tgtgggacgt ctactctggc tacctgctct gggaggccct ggtctactcc 840  
 gactacctga tcctactcaa cagctgcctc agccccctcc tctgcctcat ggccagtgcc 900  
 gacctccgga ccctgtgctg ctccgtgctc tcgtccttcg cggcagctct ctgagaggag 960  
 cggccgggca gcttcacgcc cactgagcca cagaccagc tagattctga gggccaact 1020  
 ctgccagagc cgatggcaga ggcccagtca cagatggatc ctgtggcca gcctcagggtg 1080  
 aacccacac tcagccacg atcgatccc acagctcagc cacagctgaa ccctacggcc 1140  
 cagccacagt cgatccac agcccagcca cagctgaacc tcatggcca gccacagtca 1200  
 gactctgtgg ccagccaca ggcagacact aacgtccaga cccctgcacc tgctgccagt 1260  
 tctgtgcca gtccctgtga tgaagcttcc ccaaccccat cctgcctcc taccacagg 1320  
 gcccttgagg acccagccac acctcctgcc tctgaaggag aaagccccag cagcaccgcc 1380  
 ccagaggcgg ccccgggcgc agggccacg tga 1413

<210> 94  
 <211> 419  
 <212> PRT  
 <213> Homo sapiens

<400> 94

## 00431PHRM293.ST25.txt

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Met Asp Thr Thr Met Glu Ala Asp Leu Gly Ala Thr Gly His Arg Pro
1      5      10      15
Arg Thr Glu Leu Asp Asp Glu Asp Ser Tyr Pro Gln Gly Gly Trp Asp
20      25      30
Thr Val Phe Leu Val Ala Leu Leu Leu Gly Leu Pro Ala Asn Gly
35      40      45
Leu Met Ala Trp Leu Ala Gly Ser Gln Ala Arg His Gly Ala Gly Thr
50      55      60
Arg Leu Ala Leu Leu Leu Ser Leu Ala Leu Ser Asp Phe Leu Phe
65      70      75      80
Leu Ala Ala Ala Ala Phe Gln Ile Leu Glu Ile Arg His Gly Gly His
85      90      95
Trp Pro Leu Gly Thr Ala Ala Cys Arg Phe Tyr Tyr Phe Leu Trp Gly
100     105     110
Val Ser Tyr Ser Ser Gly Leu Phe Leu Leu Ala Ala Leu Ser Leu Asp
115     120     125
Arg Cys Leu Leu Ala Leu Cys Pro His Trp Tyr Pro Gly His Arg Pro
130     135     140
Val Arg Leu Pro Leu Trp Val Cys Ala Gly Val Trp Val Leu Ala Thr
145     150     155     160
Leu Phe Ser Val Pro Trp Leu Val Phe Pro Glu Ala Ala Val Trp Trp
165     170     175
Tyr Asp Leu Val Ile Cys Leu Asp Phe Trp Asp Ser Glu Glu Leu Ser
180     185     190
Leu Arg Met Leu Glu Val Leu Gly Gly Phe Leu Pro Phe Leu Leu Leu
195     200     205
Leu Val Cys His Val Leu Thr Gln Ala Thr Ala Cys Arg Thr Cys His
210     215     220
Arg Gln Gln Gln Pro Ala Ala Cys Arg Gly Phe Ala Arg Val Ala Arg
225     230     235     240
Thr Ile Leu Ser Ala Tyr Val Val Leu Arg Leu Pro Tyr Gln Leu Ala
245     250     255
Gln Leu Leu Tyr Leu Ala Phe Leu Trp Asp Val Tyr Ser Gly Tyr Leu
260     265     270
Leu Trp Glu Ala Leu Val Tyr Ser Asp Tyr Leu Ile Leu Leu Asn Ser
275     280     285
Cys Leu Ser Pro Phe Leu Cys Leu Met Ala Ser Ala Asp Leu Arg Thr
290     295     300
Leu Leu Arg Ser Val Leu Ser Ser Phe Ala Ala Ala Leu Cys Glu Glu
305     310     315     320
Arg Pro Gly Ser Phe Thr Pro Thr Glu Pro Gln Thr Gln Leu Asp Ser
325     330     335
Glu Gly Pro Thr Leu Pro Glu Pro Met Ala Glu Ala Gln Ser Gln Met

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340

345

350

Asp Pro Val Ala Gln Pro Gln Val Asn Pro Thr Leu Gln Pro Arg Ser  
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Asp Pro Thr Ala Gln Pro Gln Leu Asn Pro Thr Ala Gln Pro Gln Ser  
 370 375 380

Asp Pro Thr Ala Gln Pro Gln Leu Asn Leu Met Ala Gln Pro Gln Ser  
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 35 40 45  
 Ser Leu Gly His Leu Leu Leu Ala Ala Leu Asp Met Pro Phe Thr Leu  
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 Leu Gly Val Met Arg Gly Arg Thr Pro Ser Ala Pro Gly Ala Cys Gln  
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 Val Ile Gly Phe Leu Asp Thr Phe Leu Ala Ser Asn Ala Ala Leu Ser  
 85 90 95  
 Val Ala Ala Leu Ser Ala Asp Gln Trp Leu Ala Val Gly Phe Pro Leu  
 100 105 110  
 Arg Tyr Ala Gly Arg Leu Arg Pro Arg Tyr Ala Gly Leu Leu Leu Gly  
 115 120 125  
 Cys Ala Trp Gly Gln Ser Leu Ala Phe Ser Gly Ala Ala Leu Gly Cys  
 130 135 140  
 Ser Trp Leu Gly Tyr Ser Ser Ala Phe Ala Ser Cys Ser Leu Arg Leu  
 145 150 155 160  
 Pro Pro Glu Pro Glu Arg Pro Arg Phe Ala Ala Phe Thr Ala Thr Leu  
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## 00431PHRM293.ST25.txt

His Ala Val Gly Phe Val Leu Pro Leu Ala Val Leu Cys Leu Thr Ser  
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 Val Thr Met Lys Ala Leu Ala Leu Leu Ala Asp Leu His Pro Ser Val  
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 Arg Gln Arg Cys Leu Ile Gln Gln Lys Arg Arg Arg His Arg Ala Thr  
 225 230 235 240  
 Arg Lys Ile Gly Ile Ala Ile Ala Thr Phe Leu Ile Cys Phe Ala Pro  
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 Tyr Val Met Thr Arg Leu Ala Glu Leu Val Pro Phe Val Thr Val Asn  
 260 265 270  
 Ala Gln Trp Gly Ile Leu Ser Lys Cys Leu Thr Tyr Ser Lys Ala Val  
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 Ala Asp Pro Phe Thr Tyr Ser Leu Leu Arg Arg Pro Phe Arg Gln Val  
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 Leu Ala Gly Met Val His Arg Leu Leu Lys Arg Thr Pro Arg Pro Ala  
 305 310 315 320  
 Ser Thr His Asp Ser Ser Leu Asp Val Ala Gly Met Val His Gln Leu  
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